

ARISTOTLE'S ^{1507/1721}

COMPLETE AND EXPERIENCED

M I D W I F E.

IN TWO PARTS:

I. A Guide for Child-bearing Women, in the Time of their Conception, Bearing, and Suckling their Children; with the best Means of Helping them, both in Natural and Unnatural Labours: Together with suitable Remedies for the various Indispo-

sitions of New-born Infants.

II. Proper and safe Remedies for the Curing all those Distempers that are incident to the Female Sex; and more especially those that are any Obstruction to their bearing of Children.

A WORK far more perfect than any yet Extant;
And highly Necessary for all Surgeons, Midwives,
Nurses, and Child-bearing Women.

Made ENGLISH by W—S—, M. D.

THE FOURTEENTH EDITION.

L O N D O N:

Printed and Sold by the Booksellers. 1782.



TO THE
MUSEUM
It is for our late countrymen, Lady Ann
-dred this - except a few of nobility and
-wills; and therefore to you it is most happily
-dicated: for the it is necessary to be known
-women - ver to your society and to your
-principally belong. And in our country
-at I have seen in many the greatest number of
-in the house of all parents, and the most
-not the only mother that is to be seen
-for the education of her children, and
-the regard, and to the same the best of
-any persons, as I have seen in a house
-being by the same, and the same the best
-and of noblest and the same the best
-y private interest, I have seen in a house
-I have seen many persons, and the same
-and with the employment of a noble wife
-in any regard to their own education, and in
-is for such a work, having an eye to nothing
-their own gain. I could not but to state the same
-the state of mankind, whom I have seen in a house
-anger of dying, almost before they were
-And that compassion I had for mankind, and the
-helpless circumstances, but more upon consideration
-ov I might best remedy to great evils. And the
-which most readily occurred to my thoughts, was
-render into English the great Aristotle's method
-rate treatise on this subject, as being that which
-most proper for the instruction of widows, and
-this

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TO THE M I D W I V E S.

IT is for your sakes, worthy matrons, that I rendered this excellent treatise of midwifry into *English*; and therefore to you it is most properly dedicated: for tho' it be necessary to be known by all women, yet to you does the practical part thereof principally belong. And indeed the deficiency that I have seen in many that pretend to your office, in the doing of their business, was the great, if not the only motive that caused me to translate it: for tho' their ignorance advanced my business; yet the regard I had to the saving the lives of so many persons, as I saw every day in danger of perishing, by the committing themselves into the hands of unskillful midwives, was much more than any private interest I could propose to myself: for when I saw how many persons took upon them that great and weighty employment of a midwife, without any regard to their own qualifications and fitness for such a work, having an eye to nothing but their own gain. I could not but deplore the miserable state of mankind, whom I saw in so great danger of dying, almost before they were born. And that compassion I had for mankind under such a deplorable circumstance, put me upon considering how I might best remedy so great an evil. And that which most readily occurred to my thoughts, was to render into *English* the great *Aristotle's* most elaborate treatise on this subject, as being that which is most proper for the instruction of midwives, and

child-bearing women, which is done in a plain and familiar stile, fitted to the meanest capacities, that being fully instructed in their duty, they might perform their office with more reputation to themselves, and less danger to their patients. And this I was rather inclined to do, because my own daily practice constantly informed me wherein the deficiency of many midwives lay, and also brought me acquainted with many particular secrets, relating to the safe and speedy delivery of travailing women, my business being generally when either the unskilfulness of the midwife, or the hardness or difficulty of the womens labour, rendered my assistance necessary, which must needs qualify me so much the better, for this undertaking wherein I am now engaged. However it be, I have ventured upon it, and will perform it with the divine assistance, as well as my abilities will give me leave; for if I fail, it will be in power, and not in will; and I hope all those that stand in need thereof, will follow our great examples so far as to except the will for the deed. And to make this treatise the more methodical, *Aristotle* herein has not only treated of the delivery of women, when the time of their travail is come, but also what shall be a guide to them and you, both in their conception, bearing and suckling of them. For it is necessary you should be able to direct them in these things. And tho' this book will be a guide for all child-bearing women into whose hands it will come; (and it were to be wished that every child-bearing woman had one of them) yet it cannot be expected, but that the most part must have their directions from you; and I hope you are not ignorant that upon womens well ordering themselves during the time they are bearing children, the preservation of themselves and children,

To the Midwives of *England*.

ren in a very great measure depends: for how many are there, that for want of herein, do ruin both themselves and children?

But were the rules that are here laid down attended to, and put in practice, you need not have those difficulties to encounter with, which you often find, and which make you so often stand in need of my assistance. For I must tell you, (tho' it be against my own interest) that it is a disparagement to you, and reflects both upon your reputation and profession, when you cannot deliver a woman without the help of a man midwife, which tho' it may be for the safety of the travailing woman, is yet a discredit to you, who ought to be so accomplished, as to perfect it yourself; and that you may do so is the design of this treatise. For it is to your knowledge, care, and skill, that the well being of a woman in labour is committed, and the life of every child you help to bring into the world, from the first moment that it draws the breath: and at your hands, if it miscarry thro' the want of skill, as well as care, shall it be required, which if duly considered, ought to deter all those from undertaking this noble office, (which is no less than being the handmaid of nature) in bringing into the world the chiefest of her works, (for such is man) without they know themselves qualified for it. And 'tis no ordinary qualification will serve. For a midwife ought to be as quick-sighted as *Argus*; and to have always her wits about her; for when her books are at home, her business is abroad. And all the affections that can be in a woman ought to be in a midwife: all the knowledge both of *Galen* and *Hippocrates* in the art of physick, for the office of a midwife, is not only to bring forth a child when it comes to the birth, but to know readily what to apply upon all

occasions, according to the various exigents in which she finds the patient; for want of which knowledge, many women have made their child-bed their death-bed, who might otherwise have recovered and done very well.

In the second part of this book he has endeavoured to make the midwife a skilful physician, by treating of all those distempers incident to women, even from the cradle to the grave; that so she may know how to administer in all those various ills with which her patients may be affected. And this he did the rather, because he knew that such is the pudor and bashfulness of many young women, who happen to be affected with those distempers that are common to their sex, that they had rather die than discover them to the doctor; who yet at the same time will freely enough disclose to a midwife; to whom he has therefore in the second part furnished with safe and proper remedies for all those distempers that are incident to the female sex, that she need not in any case be at a loss.

To conclude therefore as I began, tho' the theory of this book be very requisite to all women, yet the practical part thereof being more peculiarly to our province, I thought it most proper to make the dedication to you. And if you shall think fit to make a trial of what is here written, you will find the rules here laid down to be very plain and very easy; not so many as to burthen your memory, nor so few, as to be insufficient for every exigent and necessity. And if in the faithful discharge of your office, you add diligence to your skill; and be as careful to prevent evils before they come, and to provide for them when they are come, you will not only find the good effect of it while you live, but also the comfort of it when you come to die. Which is the earnest desire of,

Your well wisher, W. S.



The *Complete* Experienced

M I D W I F E.

P A R T I.

A GUIDE for Child-bearing Women.

The INTRODUCTION.

I Have given this book the title of, *The Complete and Experienced MIDWIFE*, both because it is chiefly designed for those that profess midwifry, and contains whatever is necessary for them to know in the practice thereof; and also because it is the result of many years experience, and that in the most difficult cases; and is therefore the more to be depended upon. A midwife is the most necessary and honourable office, being indeed a helper of nature; which therefore makes it necessary for her to be well acquainted with all the operations of nature, in the work of generation, and instruments with which she works: for she that knows not the operations of nature, nor with what tools she works, she must needs be at a loss how to assist her therein. And seeing the instruments of generation both in men and women, are those things by which mankind is produced, it is very necessary that all midwives should be well acquainted with them, that they may the better understand their business, and assist nature, as there shall be occasion. The first thing then necessary, as introductory to this treatise,

2 THE EXPERIENCED MIDWIFE.

is an ANATOMICAL DESCRIPTION of the several parts of generation, both in men and women; and having designed throughout to comprehend much in a little room, I shall avoid all unnecessary and impertinent matters, with which other books of this nature are for the most part too much clogged; and which are more curious than needful. And tho' I shall be necessitated to speak plainly, that so I may be understood, yet I shall do it with that modesty, that none shall have need to blush, unless it be from something in themselves, rather than from what they shall find here, having the motto of the royal garter for my defence, which is *Honi soit qui mal y pense*; or evil to them that evil think.

C H A P. I.

An Anatomical Description of the Instruments of Generation both in Man and Woman.

Sect. I. Of the Parts of Generation in Man.

AS the generation of mankind is produced by the coition of both sexes, it necessarily follows, that the instruments of generation are of two sorts, to wit, male and female; the operations of which are by action and passion; and herein the agent is the seed, and the patient blood, whence we may easily collect, that the body of man being generated by action and passion, he must needs be subject thereunto during his life. Now since the instruments of generation are male and female, it will be necessary to treat of them both distinctly, that the honest and discreet midwife may be well acquainted with their several parts, and their various operations, as they contribute to the work of generation. And in doing this, I shall give the honour

of precedence to my own sex, and speak first of the parts of generation in man, which will be comprehended under six particulars, viz. the *preparing vessels*, the *corpus varicosum*, the *testicles*, or *stones*, the *vasa deferentia*, the *seminal vessels*, and the *yard*, of each of which in their order.

1. The first are the *vasa preparentia*, or *preparing vessels*, which are in number 4, 2 veins, and as many arteries; and they are called *preparing vessels*, from their office, which is to prepare the matter or substance which the stones turn into seed, to fit it for the work. Whence you may note, that the liver is the original of blood, and distributes it thro' the body by the veins, and not the heart, as some have taught, as the original of these veins, the right vein proceedeth from the *vena cava*, or great vein, which receives the blood from the liver, and distributes it by its branches to all the body; the left is from the *emulgent vein*, which is one of the two main branches of the hollow vein passing to the reins. As to the arteries, they both arise from the great artery, which the *Greeks* call *ABXE*, which is indeed the great trunk and original of all the arteries. But I will not trouble you with Greek derivation of words, affecting more to teach you the knowledge of things than words.

2. The next thing to be spoken to is the *corpus varicosum*, and this is an interweaving of the veins and arteries which carry the vital and natural blood to the stones to make seed of. These tho' at their first descension they keep at a small distance the one from the other, yet before they enter the stones, they make an admirable intermixture of twisting the one from the other, so that sometimes the veins go into the arteries, and sometimes the arteries into the veins; the substance of which is very hard and

4 THE EXPERIENCED MIDWIFE.

long, not much unlike a pyramid in form, without any sensible hollownes: the use is to make one body of the blood and vital spirits, which they both mix and change the colour of, from red to white; that to the stones may both have a fit matter to work upon and do their work more easily; for which reason, the interweaving reacheth down to the very stones, and pierceth into their substance.

3. The stones are the third thing to be spoken to; called also testicles; in Latin, *teste*, that is, a *witness*, because they witness one to be a man: as to these, I need not tell you their number, nor where nature has placed them; for that is obvious to the eye. Their substance is soft, white and spongy, full of small veins and arteries, which is the reason they swell to such a bigness upon the flowing down of the humour in them. Their form is oval; but most authors are of opinion that their bigness is not equal, but that the right is the biggest, the hottest, and breeds the best and strongest seed. Each of these stones hath a muscle, called *cremaster*, which signifies to hold up, because they pull up the stones in the act of coition, that so the vessels being slackened may the better void the seed. These muscles are weakened both by age and sickness; and then the stones hang down lower than in youth and health. These stones are of great use, for they convert the blood and vital spirits into seed, for the procreation of man; but this must not be understood as if they converted all the blood that comes into them, into seed, for they keep some for their own nourishment. But besides this, they add heat, strength, and courage to the body; which is evident from this, that eunuchs are neither so hot, strong, nor valiant as other men, nor is an ox so hot or valiant as a bull.

4. The

4. The next in order are the *vasa deferentia*, which are the vessels that carry the seed from the testes to the seminal vessels, which is kept there till its expulsion. These are in number two, in colour white, and in substance nervous, or sinewy; and from a certain hollownes which they have in them, are called *spermatic pores*. They rise not far from the preparing vessels; and when they come into the cavity of the belly, they turn back again, and pass into the backside of the bladder, between it and the right gut, and when they come near the neck of the bladder, they are joined to the *seminal galls*, which somewhat resemble the cells of an honey comb; which cells contain an oily substance, for they draw the fatty substance from the seed, which they empty out into the *urinal passage*, which is done for the most part, in the act of copulation; that so the thin internal skin of the yard suffers not thro' the acrimony or sharpness of the seed. And when the *vasa deferentia* has passed, as before declared, they fall into the *glandula prestrata*, which are the vessels by nature ordained to keep the seed, and which are next to be spoken to.

5. The seminal vessels called *glandulum feminale*, are certain kernels placed between the neck of the bladder and the right gut; composing about the *vasa deferentia*, the *urethra*, or common passage for seed and urine, passing thro' the midst of it; and may properly enough be called the conduit of the yard. At the mouth of the *urethra*, where it meets with the *vasa deferentia* there is a thick skin, whose office is to hinder the seminal vessels, which are of a spongy nature, from shedding their seed against their will; this skin is very full of pores, and thro' the heat of the act of copulation, the pores open, and so give passage to the seed,

which being of a very subtle spirit, and especially being moved, will pass thro' this caruncle or skin, as quicksilver thro' a leather; and yet the pores of this skin are not discernable, unless in the anatomy of a man who had some violent running in the reins when he died, and then they are conspicuous, those vessels being the proper seat of that disease.

6. The last of the parts of generation in man to be spoke to is the yard, which has a principal share in the work of generation; and is called *penis*, from its hanging without the belly; and it consists of skin, tendons, veins, arteries, sinews, and great ligaments, and is long and round; being ordained by nature both for the passage for the urine, and for the conveying of seed into the matrix. It hath some parts common with it to the rest of the body, as the skin, or the *membrana cornea*; and some parts it has peculiar to itself, as the 2 nervous bodies, the *septum*, the *urethra*, the *glans*, the four muscles, and the vessels: the skin, which the Latins call *cutis*, is full of pores thro' which the sweet and fuliginous, or sooty black vapours of the third concoction (which concocts the blood into flesh) pass out; these pores are very many and thick, but hardly visible to the eye; and when the yard stands not, it is sluggy; but when it stands, it is stiff; the skin is very sensible, because the nerves concur to make its being; for the brain gives sense to the body by the nerves. As to the *cornea membrana*, or fleshy skin, it is so called, not because its body is fleshy, but because it lies between the flesh, and passeth in other parts of the body underneath the fat; and sticks close to the muscles; but in the yard there is no fat at all, only a few superficial veins and arteries pass between the former skin and this, which when the yard stands are visible to the eye; these

THE EXPERIENCED MIDWIFE.

7

these are the parts common both to the yard, and to the rest of the body. And those are likewise six, as has been already said, of which it will also be necessary to speak particularly. And,

1. Of the *nervous bodies*; those are two, tho' joined together, and are hard, long, and sinewy; they are spongy within, and full of black blood, the spongy substance of the inward part of it seems to be woven together like a net, consisting of innumerable twigs of veins and arteries. The black blood, contained therein, is very full of spirits, and the delights or desire of *Venus*, adds heat to these, which causeth the yard to stand; and that is the reason that both venereal sights and tales will do it. Nor need it be strange to any, that *Venus* being a planet cold and moist, should add heat to those parts, since by night, as the Psalmist testifies, *Psal. 121, 6*. Now this hollow spongy intermixture or weaving, was so ordered by nature, on purpose to contain the spirit of venereal heat, that the yard may not fall before it has done its work. These two side ligaments of the yard where they are thick and round, arise from the lower parts of the share-bone, and at the beginning are separated the one from the other, resembling a pair of horns, or the letter Y, where the *urethra*, or common passage of urine and seed, passeth between them.

2. Those nervous bodies of which I have spoken, so soon as they come to the joining of the share-bone, are joined by the *septum luctum*, which is the second internal part to be described; which in substance is white and nervous, or sinewy, and its use is to uphold the two side ligaments and the *urethra*.

3. The third thing in the internal parts of the yard, is the *urethra*, which is the passage, or chan-

8 THE EXPERIENCED MIDWIFE.

nel by which both the seed and urine is conveyed out thro' the yard. The substance of it is finewy, thick, soft, and loose, as the side ligaments are; it begins at the neck of the bladder, and being joined to it, passeth to the glans. It has in the beginning of it 3 holes, of which the largest of them is in the midst, which receives the urine into it; the other 2 are smaller, by which it receives the seed from each seminal vessel.

4. The yard has 4 muscles, on each side two; these muscles are instruments of voluntary motion, without which no part of the body can move itself. it consists of fibrous flesh to make up its body of nerves for its sense, of veins for nourishment, of arteries for its vital heat, of a membrane or skin to knit it together, and to distinguish one muscle from another, and all of them from the flesh. Of these muscles, as I said before, the yard has 2 of each side, and the use of them is to erect the yard, and make it stand, and therefore are they also called *erectoris*. But here you must note, that of the 2 on each side, the one is shorter and thicker than the other: and these are they that do erect the yard, and so are called *erectoris*; but the other 2 being longer and smaller, their office is to dilate the lower part of the *urethra*, both for making water, and emitting the seed; upon which account they are called *accelerators*.

5. That which is called the *glans*, is the extreme part of the yard; which is very soft, and of a most exquisite feeling, by reason of the thinness of the skin wherewith it is covered: this is covered with the *præputium*, or foreskin, which in some men covers the top of the yard quite close, but in others it doth not; which skin moving up and down in the act of copulation, brings pleasure

sure both to man and woman. This outer skin is that which the *Jews* were commanded to cut off on the eighth day. This *præputium*, or foreskin, is tied to the *glans* by a ligament or bridle, which is called *fraenum*.

6. The last internal part of the yard, are the vessels thereof, veins, nerves, and arteries. Of these some pass by the skin, and are visible to the eye, when the yard stands; others pass by the inward parts of the yard: the arteries are wonderfully dispersed thro' the body of the yard, much exceeding the dispersion of the veins; for the right artery is dispersed to the left side, and the left to the right side. It hath 2 nerves, the lesser whereof is bestowed upon the skin, the greater upon the muscles and body of the yard. But thus much shall suffice to be said in describing the parts of generation in men. And shall therefore in the next place proceed to describe those of women; that so the honest and industrious midwife may the better know how to help them in their extremities.

Sect. 2. *Describing the Parts of Generation in Women.*

WHATEVER ignorant persons may imagine, or some good women think, that are unwilling those private parts, which nature has given them, should be thus exposed; yet it is in this case absolutely necessary; for I do positively affirm, that it is impossible truly to apprehend what a midwife ought to do, if these parts are not perfectly understood by them; nor do I know any reason they have to be ashamed to see or hear a particular description of what God and nature has given them; since it is not the having these parts, but the unlawful use of them, that causes shame.

10 THE EXPERIENCED MIDWIFE.

To proceed then in this description more regularly; I shall speak, in order, to the following principal parts: 1st, *Of the privy passage.* 2dly, *Of the womb.* 3dly, *Of the testicles or stones.* 4thly, *Of the spermatic vessels.*

1st. *Of the privy passage.* Under this head I shall consider the six following parts:

1. The *lips*, which are visible to the eye, and are designed by nature as a cover to the *fissura magna*, or great orifice: these are framed of the body, and have pretty store of spungy fat; and their use is to keep the internal parts from cold and dust; these are the only things that are obvious to the sight, the rest are concealed, and cannot be seen unless these two lips are stretched asunder, and the entry of the privities opened.

2. When the lips are severed, the next thing that appears is the *nympha*, or wings; they are formed of soft and spungy flesh, and are in form and colour, like the comb of a cock.

3. In the uppermost part, just above the urinary passage, may be observed the clitoris, which is a sinewy and hard body, full of spungy and black matter within, like the side ligaments of the yard, representing in form the yard of a man, and suffers erection and falling as that doth; and it grows hard, and becomes erected as a man's yard doth, in proportion to the desire a woman hath in copulation; and this also is that which gives a woman delight in copulation: for without this, a woman hath neither a desire to copulation, nor delight in it, nor conceive by it. And I have heard that some women have had their clitoris so long, that they have abused other women therewith; nay, some have gone so far as to say, that those persons that have been reported to be hermaphrodites, as having the genitals both

both of men and women, are only such women to whom the clitoris hangs out externally, resembling the form of a yard. But tho' I will not be positive in that, yet it is certain that the larger the clitoris is in any woman, the more lustful she is.

4. Under the *clitoris*, and above the neck, appears the orifice, or urinary passage, which is much larger in women than men, and causes their water to come from them in a great stream; on both sides of the urinary passage may be seen 2 small membranous appendices, a little broader above than below, issuing forth of the inward parts of the great lips, immediately under the clitoris, the use whereof is to cover the orifice of the urine, and defend the bladder from the cold air; so that when a woman makes water, she contracts herself so, that she conducts out the urine without suffering it to spread along the privities, and often without so much as wetting the lips. And therefore these small membranous wings are called the *nymphæ*, because they govern the womens water. Some women have them so great and long, that they have been necessitated to cut off so much as has exceeded, and grew without the lips.

5. Near this are 4 *caruncles*, or fleshy knobs, commonly called *caruncles myrtiformes*; these are placed on each side two, and a small one above, just under the urinary passage: and in virgins are reddish, and plump, and round, but hang flaccid when virginity is lost: in virgins they are joined together by a thin and finewy skin or membrane, which is called the *Hymen*, and keeps them in subjection, and makes them resemble a kind of rose-bud half blown: this disposition of the caruncles is the only certain mark of virginity: it being in vain to search for it elsewhere, or hope to be informed

of it any other way. And 'tis from the passing and bruising these caruncles, and forcing and breaking the little membranes, (which is done by the yard in the first act of copulation) that there happens an effusion of blood; after which they remain separated, and never recover their first figure; but become more and more flat, as the acts of copulation are increased; and in those that have had children, they are almost totally defaced, by reason of the great distention these parts suffer in the time of their labour. Their use is to straiten the neck of the womb, to hinder the cold air from incommoding it; and likewise to increase the mutual pleasure in the act of coition; from them the caruncles being then extremely swelled, and filled with blood and spirits, they close with more pleasure upon the yard of the man; whereby the woman is much more delighted. What I have said of the effusion of blood which happens in the first act of copulation, tho' when it so happens, it is an undoubted sign of virginity, showing the *caruncles myrtiformes*, have never been pressed till then; yet when there happens no blood, it is not always a sign that virginity is lost before; for the *hymen* may be broken without copulation, by the defluxion of sharp humours; which sometimes happens to young virgins, because in them it is thinnest: it is also done by the unskillful applying of lesteries to provoke the terms, &c. But these things happen so rarely, that those virgins to whom it so happen, do thereby bring themselves under a just suspicion.

6. There is next to be spoken to, the neck of the womb, which is nothing else but the distance between the privy passage, and the mouth of the womb, into which the man's yard enters in the act of copulation; and in women of reasonable stature,

is about 8 inches in length. It is of a membranous substance, fleshy without, skinny, and very much wrinkled within: and that both because it may retain the seed cast into it in the act of copulation, and also that it may dilate and extend itself to give sufficient passage to the infant at its birth. It is composed of 2 membranes, the innermost of them being white, nervous, and circular, wrinkled much like the palate of an ox, that so it might either contract or dilate itself, according to the bigness or length of the man's yard; and to the end that by the collusion, or squeezing, or pressing made by the yard in copulation, the pleasure may be naturally augmented. The external or outmost membrane is red and fleshy like the muscle of the fundament, surrounding the first, to the end the yard may be the better closed within it, and it is by means of this membrane, that the neck adheres the stronger both to the bladder and the right guts. The internal membrane in young girls is very soft and delicate; but in women much addicted to copulation, it grows harder: and in those that are grown aged, if they have been given much to venery, it is almost become grissly.

2. Having spoken of the *privy passage*, I come now to speak of the womb, which the Latins call *matrix*, yet the only English word is the womb. Its parts are two, the mouth of the womb, and the bottom of it: the mouth is an orifice at the entrance into it, which may be dilated and shut together like a purse: for altho' in the act of copulation, it be big enough to receive the glans of the yard, yet after conception it is so close shut, that it will not admit of the point of a bodkin to enter; and yet again at the time of the woman's delivery, it is opened so extraordinary, that the infant passeth thro'

thro' it into the world : at which time this orifice wholly disappears, and the womb seems to have but one great cavity from its bottom to the very entrance of the neck. When a woman is not with child, 'tis a little oblong, and of substance very thick and close : but when she is with child, it is shortened, and its thickness diminisheth proportionable to its distention. And therefore it is a mistake of some anatomists, to affirm that its substance waxeth thicker a little before a woman's labour : for any one's reason will inform them, that the more it is distended, the thinner it must be ; and the nearer a woman is to the time of her delivery, the shorter her womb must be extended. As to the action by which this inward orifice of the womb is opened and shut, it is purely nature : for were it otherwise, there would not be so many bastards begotten as there are ; nor would many married women have so many children, were it at their own choice, but they would hinder conception, though they would be willing enough to use copulation ; for nature has attended that action with something so pleasing and delightful, that they are willing to indulge themselves in the use thereof, notwithstanding the pains they afterwards endure, and the hazard of their lives that often follows it : and this comes to pass not so much for any inordinate lust in women, as for that the Great DIRECTOR of nature, for the increase and multiplication of mankind, and even all other species in the elementary world, hath placed such a magnetic virtue in the womb, that it draws the seed to it, as the load-stone draws iron.

The AUTHOR of nature has placed the womb in the woman's belly, that the heat might always be maintained by the warmth of the parts surrounding

ing it; it is therefore seated in the middle of the *hypogastrium*, (or lower part of the belly) between the bladder and the *rectum*, (or right gut) by which also it is defended from receiving any hurt thro' the hardness of the bones; and is placed in the lower part of the belly, for the conveniency of copulation, and of a birth's being thrust out at the full time.

It is of a figure almost round, inclining somewhat to an oblong, in part resembling a pear; for from being broad at the bottom, it gradually terminates in the point of the orifice which is narrow.

The length, breadth, and thickness of the womb differ according to the age and disposition of the body; for in virgins not ripe, 'tis very small in all its dimensions; but in women whose terms flow in great quantities, and such as frequently use copulation, it is much larger; and if they had children, it is larger in them than in such as have none; but in women of a good stature, and well shaped, it is (as I have said before) from the entry of the privy parts, to the bottom of the womb, usually, about 8, but the length of the body of the womb alone, does not exceed 3 inches, and breadth thereof is near about the same, and of thickness of the little finger, when the woman is not pregnant; but when the woman is with child; it becomes of a prodigious greatness, and the nearer she is to her delivery, the more is the womb extended.

It is not without reason then that nature (or God of nature rather) has made the womb of a membranous substance; for thereby it does the easier open to conceive, and is gradually dilated from the growth of the *fetus*, or young one; and is afterwards contracted and closed again, to thrust forth both it and the after burthen; and then to retire to its

its primitive seat. Hence also it is enabled to expel any noxious humours, which may sometimes happen to be contained within it.

Before I have done with the womb, which is the field of generation, and ought therefore to be particularly taken care of. (For as the seeds of plants can produce no fruits, nor spring, unless sown in ground proper to waxen and excite their vegetative virtue; so likewise the seed of man, tho' potentially containing all the parts of a child, would never produce so admirable an effect, if it were not cast into the fruitful field of nature, the womb.) I shall proceed to a more particular description of the parts thereof, and the uses to which nature has designed them.

The womb then is composed of various similiary parts, that is of membranes, veins, arteries and nerves. Its membranes are 2, and they compose the principal part of its body, the outmoſt of which ariseth from the *peritonum*, or caul, and is very thin, without smooth, but within unequal, that it may the better cleave to the womb, as it were fleshy and thicker than any else we meet with in the body, when a woman is not pregnant, and is interwoven with all sorts of fibres, or small strings, that it may the better suffer the extension of the child, and the waters caused during pregnancy; and also that it may the easier close again after delivery.

The veins and arteries proceed from the *hypogastric*, and the *spermatic vessels*, of which I shall speak by and by; all these are inserted and terminated in the proper membrane of the womb. The arteries supply it with blood for its nourishment; which being brought thither in too great quantity, sweats thro' the substance of it, and distils as it were a dew

THE EXPERIENCED MIDWIFE. 17

dew into the bottom of its cavity ; from whence do proceed both the terms in ripe virgins, and the blood which nourisheth the *embrio* in-breeding women. The branches which issue from the *spermatic vessels*, are inserted in each side of the bottom of the womb, and are much less than those which proceed from the *hypocastrics*, those being greater, and bedewing the whole substance of it. There are yet some other small vessels, which arising the one from the other, are conducted to the internal orifice, and by these those that are pregnant do purge away the superfluity of their terms, when they happen to have more than is used in the nourishment of the infant ; by which means nature hath taken such care of the womb, that during its pregnancy, it shall not be obliged to open itself for the passing away those excrementious humours ; which should it be forced to do, it might often endanger abortion.

As touching the nerves, they proceed from the brain, which furnishes all the inner parts of the lower belly with them, which is the true reason it hath so great a sympathy with the stomach, which is likewise very considerably furnished from the same part ; so that the womb cannot be afflicted with any pain, but the stomach is immediately sensible thereof ; which is the cause of those loathings, or frequent vomitings which happen to it.

But besides all these parts which compose the womb, it hath yet 4 ligaments, whose office is to keep it firm in its place, and prevent its constant agitation by the continual motion of the intestine which surrounds it, 2 of which are above, and 2 below : those above are called the broad ligaments, because of their broad and membranous figure, and are nothing else but the production of the *peritoneum*, which growing out of the sides of the loins towards

towards the reins, come to be inserted in the sides of the bottom of the womb, to hinder the body from bearing too much on the neck, and so from suffering a precipitation; as will sometimes happen, when the ligaments are too much relaxed; and do also contain the testicles; and as well safely conduct the different vessels, as the ejaculatories to the womb. The lowermost are called round ligaments, taking their original from the side of the womb, near the horn, from whence they pass the groin, together with the production of the *peritoneum*, which accompanies them thro' the reins and holes of the oblique and transverse muscles of the belly, where they divide themselves into many little branches, resembling the foot of a goose, of which some are inserted into the *os pubis*, and the rest are lost, and confounded with the membranes that cover the upper and interior parts of the thigh; and 'tis that which causes that numbness which women with child feel in their thigh. These 2 ligaments, are long, round, and nervous, and pretty big in their beginning near the *matrix*, hollow at their rise, and all along to the *os pubis*, where they are a little smaller, and become flat, the better to be inserted in the manner aforesaid. It is by their means the womb is hindered from rising too high. Now altho' the womb is held in its natural situation by means of those 4 ligaments, yet it has liberty enough to extend itself when pregnant, because they are very loose, and so easily yield to its distention. But besides these ligaments, which keep the womb as it were in a poize, yet it is fastened, for greater security, by its neck both to the bladder and rectum, between which it is situated. Whence it comes to pass, that if at any time the womb be inflamed,

flamed, it communicates the inflammation to the neighbouring parts.

Its use, or proper action in the work of generation, is to receive and retain the seed, and to reduce it from power to action by its heat, for the generation of the infant, and is therefore absolutely necessary for the conservation of the species. It also seems by accident to receive and expel the impurities of the whole body, as when women have abundance of whites, and to purge away from time to time the superfluity of the blood, as it doth every month by the evacuation of the blood, as when a woman is not with child. And thus much shall suffice for the description of the womb, in which I have been the larger, because, as I have said before, it is the field of generation.

III. The next thing to be described in the genitals of women, is the testicles, or stones, for such women have as well as men, but are not for the same use, and indeed are different from those in men, in several particulars; as 1st in place, as being within the belly; whereas in men they are without. 2dly, In figure, being uneven in women, but smooth in men. 3dly, In magnitude, being lesser in women than in men. 4. They are not fixed in women by muscles, but by ligaments. 5. They have no pottrates or kernels, as men have. 6. They differ in form, being depressed or flattish in women, but are oval in men. 7. They have but one skin, whereas men have 4; for the stones of men being more exposed, nature has provided a covering for them accordingly. 8. Their substance is more soft than in men. And 9. Their temperature is colder than men. And as they differ in all these respects, so do they also in their use, for they perform not the same actions as mens, as I shall

shall shew presently ; as for their seat, it is in the hollowness of the *abdomen*, and therefore not extremely pendulous, but rest upon the *ova* or egg. 'Tis true *Galen* and *Hippocrates* did erroneously imagine that the stones in women did both contain and elaborate the feed, as those do in men, but it is a great mistake ; for the testicles of a woman are as it were no more than 2 clusters of eggs, which lie there to be impregnated by the most spirituous particles, or animating *effluvia* conveyed out of the womb thro' the 2 tubes, or different vessels ; but however, the stones in women are very useful ; for where they are defective, generation-work is at an end. For tho' these little bladders, which are on their superficies, containing nothing of feed, yet they contain several eggs (commonly to the number of 20 in each testicle (one of each being impregnated in the act of coition, by the most spirituous part of the feed of the man, descends thro' the oviducts into the womb, and there in process of time becomes a living child.

IV. I am now to speak of the *spermatic vessels* in women, which are 2, and are fastened in their whole extent, by a membranous appendix to the broad ligaments of the womb ; those do not proceed from the testicles, as in men, but are distant from them a finger's breadth at least ; and being disposed after the manner of the *miseric veins*, are trained along this membranous distance between the different vessels and the testicles. Their substance is, as it were, nervous and moderately hard ; they are round, hollow, big, and broad enough at their end, joining to the horn of the womb. Some authors affirm, that by these women discharge their feed into the bottom of the womb ; but the whole current of our modern authors run quite another

way

way, and are positive that there is no seed at all in their vessels; but that after the egg or eggs, in the *ovaria* or testicles are impregnated by the seed of the man, they descend thro' these two vessels into the womb, where being placed, the *embryo* is nourished. These vessels are shorter in women than they are in men; for the stones of a woman lying within the belly, their passage must needs be shorter, but their various wreathings and windings in and out makes amends for the shortness of their passage. These vessels are not united before they come to the stones, but divide themselves into 2 branches, the lesser to the womb, both for the nourishment of itself and the infant in it. I will only observe further, that these spermatic veins receive the arteries as they pass by the womb; and so there is a mixture between vital and natural blood, that so the work might be the better wrought; and that it is so, appears by this, that if you blow up the spermatic vein, you may perceive the right and left vessel of the womb blown up: from whence also the communion of all the vessels of the womb may be easily perceived.

The *deferentia*, or carrying vessels, spring from the lower part of the testicles, and are in colour white, and in substance sinewy, and pass not the wombstrait, but wreathed with several turnings and windings, as was said of the spermatic vessels, that so the shortness of the way may likewise be recompensed by their winding meanders; yet near the womb they become broad again. They proceed in two parts from the womb, which resemble horns, and are therefore called the horns of the womb. And this is all that is needful to be known or treated of, concerning the parts of generation, both in men and women.

Only

Only since our modern anatomists and physicians are of different sentiments from the ancients, touching the woman's contributing of seed for the formation of the child, as well as the man; the ancients strongly affirming it, but our modern authors being generally of another judgment, I will here declare the several reasons for their different opinions, and so pass on.

Sect. 3. Of the Differences between the ancient and modern Physicians, touching the Woman's contributing Seed to the Formation of the Child.

I Will not make myself a party in this controversy, but set down impartially, but yet briefly, the arguments on each side, and leave the judicious reader to judge for himself.

Tho' it is apparent, say the ancients, that the seed of man is the principal, efficient and beginning of action, motion and generation; yet the woman affords seed, and contributes to the procreation of the child, is evident from hence, that the woman has seminal vessels, which had been given her in vain, had she wanted seminal excrecence; but since nature doth nothing in vain, it must be granted they were made for the use of seed and procreation, and fixed in their proper places to operate, and contribute virtue and efficacy to the seed; and this, say they, is further proved from hence, that if a woman at years of maturity use not copulation to eject their seed, they often fall into strange diseases, as appears by young women and virgins, and also it is apparent that women are never better pleased, than when they are often satished this way, which argues the pleasure and delight they take herein; which pleasure and delight, say they, is double in women, to what it is in man; for as the delight of men in copulation, consists chiefly in the emission

emission of the seed, so women are delighted both in the emission of their own, and the reception of the man's.

But against all this, our modern authors affirm, that the ancients were ever erroneous; forasmuch as the testicles in women do not afford seed, but are 2 eggs, like those of fowls and other creatures, neither have they any such offices as those of men; but indeed are an *ovarium*, or receptacles for eggs, wherein these eggs are nourished by the sanguinary vessels, dispersed thro' them; and from whence one or more, as they are foecundated by the man's seed, are conveyed into the womb by the oviducts. And the truth of this, say they, is so plain, that if you boil them, their liquor will have the same taste, colour, and consistency, with the taste of birds eggs. And if it be objected, that they have no shells, the answer is easy; for the eggs of fowls, while they are in the ovary, nay, after they are fallen into the *uretus*, have no shell; and tho' they have one when they are lain, yet it is no more than a fence which nature has provided for them against outward injuries, they being hatched without the body; but those of women being hatched within the body hath no need of any other fence, than the womb to secure them.

They also further say, there are in the generation of the *fetus*, or young one, two principles, active and passive, the active is the man's seed, elaborated in the testicles, out of the arterial blood and animal spirits; the passive principle is the *ovum* or egg impregnated by the man's seed; for to say, that women has true seed (say they) is erroneous. But the manner of conception is this; the most spirituous part of man's seed in the act of copulation, reaching up to the *ovarium*, or testicles of the woman (which contains

contains divers eggs, sometimes more, sometimes fewer) impregnates one of them, which being conveyed by the oviducts of the bottom of the womb, presently begins to swell bigger and bigger, and drinks in the moisture that it plentifully sent hither, after the same manner that the seeds in the ground suck the fertile moisture thereof, to make them sprout.

But notwithstanding what is here urged by our modern anatomists, there are some late writers of the opinion of the antients, viz. That women have both, and emit seed in the act of copulation; and the good women themselves take it ill to be thought merely passive in those wars wherein they make such vigorous encounters, and positively affirm they are sensible of the emission of their seed in those engagements, and that in it a great part of the delight which they take in that act consists: I will not therefore go about to take any of their happiness away from them, but leave them in the possession of their imagined felicity.

Having thus laid the foundation of this work, in the description I have given of the parts dedicated to the work of generation both in man and woman, I shall now proceed to speak of conception, and of those things that are necessary to be observed by women, from the time of their conception, to the time of their delivery.

C H A P. III.

Of Conception; what it is, the Signs thereof, whether conceived of a Male or Female; how Women are to order themselves after Conception.

Sect. I. What Conception is, and the Qualification requisite thereto.

CONCEPTION is nothing else but an action of the womb, by which the prolific seed is received and retained, that an infant may be engendered and formed out of it. There are 2 sorts of conception, the one according to nature, which is followed by the generation of the infant in the womb; the other is false, and wholly against nature, in which the seed changes into water, and produces only false conception, molas, or other strange matter. Now there are three things principally necessary, in order to a true conception, so that generation may follow; to wit, diversity of sex, congression, and emission of seed. Without diversity of sexes, there can be no conception: for tho' some will have a woman to be an animal that can engender of herself, it is a great mistake; for there can be no conception without a man to discharge his seed into her womb: what they alledge of pullets laying eggs without a cock's treading them, is nothing to the purpose; for those eggs, should they be set under a hen, will never become chickens, because they never received any prolific virtue from the male: which is absolutely necessary to this purpose, and is sufficient to convince us, that diversity of sex is necessary, even to those animals, as well as to the generation of man. But diversity of sex, tho' it be necessary to conception, yet it won't do alone, there must also be a congression of those different sexes; for diversity of sex would profit little if

if copulation did not follow. I confess I have heard of some subtle women, who to cover their sin and shame, have endeavoured to persuade some peasant, that they were never touched by men to get them with child, and that one in particular pretended to conceive by going into a bath where a man had washed himself a little before, and spout his seed in it, which was drawn and sucked into her womb, as she pretended; but such stories as those are only fit to amuse them that know no better.—Now that these different sexes should be obliged to come to the touch which we call copulation, or coition, besides the natural desire of begetting their like, which stirs up men and women to it, the parts appointed for generation, are endowed by nature with a delightful and mutual itch, which begets in them desire to the action: without which, it would not be very easy for a man born for the contemplation of divine mysteries, to join himself by the way of coition to a woman, in regard to the uncleanness of the part and of the action; and on the other side, if women did but think of those pains and inconveniencies to which they are subject by their great bellies, and those hazards even of life itself, besides the unavoidable pains that attend their delivery, it is reasonable to believe they would be afrighted from it. But neither sex make these reflexions, till after the action is over, considering nothing beforehand but the pleasure of enjoyment. So that it is from this voluptuous itch, that nature obligeth both sexes to this congression. Upon which the third thing followeth of course, to wit, the emission of seed into the womb, in the act of copulation. For the woman having received this prolific seed into her womb, and retained it there, the womb thereupon becomes compressed, and embraces the seed

so closely, that being closed, the point of a needle, as saith *Hippocrates*, cannot enter it without violence; and now the woman may be said to have conceived; being reduced by its heat from power into action: the several faculties which are in the seed it contains, making use of the spirits with which the seed abounds, and which are the instruments by which it begins to trace out the first lineaments of all the parts; to which afterwards, of making use of the menstruous blood flowing to it, it gives in time, growth and final perfection. And thus much shall suffice to shew what conception is, I shall now proceed to shew

Sect. 2. *The sign of Conception.*

THERE are many prognostics, or signs of conception; I shall name some of the chief, which are the most certain, and let alone the rest.

1. If a woman has been more than ordinary desirous of copulation, and hath taken more pleasure than usual therein, (which upon recollection she may easily know) it is a sign of conception.

2. If she retain the seed in her womb, after copulation, which she may know if she perceives it not to flow down from the womb, as it used to do before; for that is a sure sign the womb has received it into the inward orifice, and there retains it.

3. If she finds a coldness and chilliness after copulation, it shews the heat retired to make conception.

4. If after this she begins to have loathings to those things which she loved before, and this attended with a loss of appetite, and a desire after meats, to which she was not affected before; and hath often nauseatings and vomittings, with sour belchings, and exceeding weakness of stomach.

5. After

28 THE EXPERIENCED MIDWIFE.

5. After conception the belly waxeth very flat, because the womb closeth itself together, to nourish and cherish the seed; contracting itself so as to leave no empty space.

6. If the veins of the breast are more clearly seen than they are wont to be, it is a sign of conception.

7. So it is also if the tops of the nipples look redder than formerly, and the breasts begin to swell, and grow harder than usual, especially if this be attended with pain and soreness.

8. If a woman has twisting and griping pains, much like those of the cramp, in her belly, and about her navel, it is a sign she has conceived.

9. If under the lower eye-lid the veins be swelled and appear clearly, and the eye be something discoloured, it is a certain sign she is with child, unless she have her *menses* at the same time upon her, or that she has set up the night before. This sign has never failed.

10. Some also make this trial of conception: they stop the woman's urine in a glass or vial for 3 days, and then strain it thro' a fine lined cloth, and if they find small living creatures in it, they conclude that the woman is certainly conceived.

11. There also is another easy trial: let the woman that supposes she has conceived, take a green nettle, and put it into her urine, cover it close, and let it remain therein a whole night, if the woman be with child, it will be full of red spots on the morrow; but if she be not with child, it will be blackish.

12. The last sign I shall mention, is that which is most obvious to every woman, which is the suppression of the terms: for after conception, nature makes use of that blood for the nourishment of the
embryo,

embrio, which before was cast out by nature, because it was too great in quantity. For it is an error to think that the menstrual blood, simply in itself considered, is bad: for if a woman's body be in good temper, the blood must needs be good, and that it is voided monthly is, because it offends in quantity, but not in quality: for tho' the suppression of the terms is generally a sure sign of conception to such persons as have had them orderly before, yet it is not the having them, always a sign there is no conception: forasmuch as many that have been with child have had their terms, and some even till the fifth or sixth month; which happens according to the woman's being more or less sanguine; for if a woman has more blood than will suffice for the nourishment of the *embrio*, nature continues to void it in the usual way. Whence the experienced midwife may learn there are very few general rules, which do not sometimes admit of an exception. But this shall suffice to be spoken of the signs and prognostics of conception.

Sect. 3. *Whether Conception be of a Male or Female.*

AUTHORS give us several prognostics of this, tho' they are not all to be trusted, yet there is some truth among them: the signs of a male child conceived are,

1. When a woman at her rising up, is more apt to stay herself upon her right hand than her left.
2. Her belly lies rounder and higher, than when she has conceived of a female.
3. She first feels the child to beat on her right side.
4. She carries her burthen more lighter, and with less pain than when 'tis a female.
5. Her right nipple is redder than the left, and her right breast harder and more plump.

6. Her

6. Her colour is more clear, nor is she so swarthy as when she has conceived a female.

7. Observe the circle under her eye, which is a pale and bluish colour; and if that under her right eye be most apparent, and most discoloured, she has conceived of a son.

8. If she would know if she hath conceived of a son, or a daughter, let her milk a drop of her milk into a bason of fair water; if it spreads and swims at top, it certainly is a boy; but if it sinks to the bottom as it drops in, round in a drop, it is a girl. This last is an infallible rule. And in all it is to be noted, that what is a sign of a male conception, the contrary holds good of a female.

Sect. 4. *How a Woman ought to Order herself at Conception.*

MY design in this treatise being brevity, I shall pretermit all that others say of the causes of twins, and whether there be any such thing as superfoetations, or a second conception in a woman, which is yet common enough; when I come to shew you how the midwife ought to proceed, in the delivery of those women that are pregnant with them. But having already spoken of conception, I think it now necessary to shew how such as have conceived ought to order themselves during their pregnancy, that they may avoid those inconveniencies which often endanger the life of the child, and many times their own.

A woman after her conception, during the time of her being with child, ought to be looked upon as indisposed or sick, tho' in good health; for child-bearing is a kind of nine months sickness, being all that time in expectation of many inconveniencies, which such a condition usually causes to those that are not well governed during that time. And there-

fore

fore ought to resemble a good pilot, who when sailing in a rough sea and full of rocks, avoids and shuns the danger, if he steers with prudence; but if not, 'tis a thousand to one but he suffers shipwreck. In like manner a woman with child, is often in danger of miscarrying and losing her life, if she is not very careful to prevent those accidents to which she is subject all the time of her pregnancy: all which time her care must be double, first of herself, and 2dly of the child she goes with; for otherwise a single error may produce a double mischief; for if she receives any prejudice, her child also suffers with her.

Let a woman therefore after conception, observe a good diet, suitable to her temperament, custom, condition, and quality; and, if she can, let the air which she ordinarily dwells be clear and well tempered, free from extremes either of heat or cold; for being too hot, it dissipateth the spirits too much, and causeth many weaknesses, and by being too cold and foggy, it may bring down rheums, and distillations on the lungs, and so cause her to cough, which, by its impetuous motions forcing downwards, may make her miscarry: she ought also to avoid all nauseous and ill smells, for sometimes the stink of a candle not well put out, may cause her to come before her time; and I have known the smell of charcoal to have the same effect. Let her also avoid smelling to rue, mint, pennyroyal, castor, brimstone, &c.

But with respect to her diet, women with child have generally so great loavings, and so many different longings, that it is very difficult to prescribe an exact diet for them. Only this I think advisable, that they may use of those meats and drinks which are to them most desirable, tho' perhaps not

32 THE EXPERIENCED MIDWIFE.

in themselves so welcome as some others, and it may not be so pleasant: but this liberty must be made use of with this caution, that what she so desires be not in itself absolutely unwholesome; and also that in every thing they take care of excess. But if a child-bearing woman finds herself not troubled with such longings as we have spoken of, and in such quantities as may be sufficient for herself and the child, which her appetite may in a great measure regulate: for it is as alike hurtful for her to fast too long, as to eat too much, and therefore rather let her eat a little and often; especially let her avoid eating too much at night, because the stomach being too much filled, compresseth the diaphragm, and thereby causeth difficulty of breathing. Let her meat be easy of concoction, such as the tenderest parts of beef, mutton, veal, fowls, pullets, capons, pigeons, and partridges, either boiled or roasted, as she likes best: new laid eggs are also very good for her: and let her put into her broths those herbs that purify it, as sorrell, lettuce, succory, and burrage; for they will purge and purify the blood: let her avoid whatsoever is hot seasoned, especially pies, and baked meats, which being of hot digestion, over-charge the stomach. If she desires fish, let it be fresh, and such as is taken out of rivers and running streams. Let her eat quinces, or marmalade, to strengthen her child, for which purpose, sweet almonds, honey, sweet apples, and full ripe grapes are also good. Let her abstain from all sharp, sour, bitter, and salt things, and all things that tend to provoke the terms, such as garlic, onions, olives, mustard, fennel, with pepper, and all spices, except cinnamon, which in the 3 last months is good for her. Let at first her diet be sparing, as she increases in

ness, let her diet be increased; for she ought to consider she has a child, as well as herself, to nourish. Let her be moderate in her drinking, and if she drinks wine, let it be rather claret than white, (which will breed good blood, help the digestion, and comfort the stomach, which is always but weakly during her pregnancy,) but white wine being diuretic, or that which provokes urine, ought to be avoided. Let her have a care of too much exercise, and let her avoid dancing, riding in a coach, or whatever else puts the body in violent motions, especially in her first month. But to be more particular, I shall here set down rules proper for every month, for the child-bearing woman to order herself, from the time she has first conceived, to the time of her delivery.

Rules for the first two Months.

AS soon as a woman knows, or has reason to believe, she hath conceived, she ought to abstain from all violent motions and exercise, whether to walk on foot, or ride on horseback, or in a coach, it ought to be very gently. Let her also abstain from venery, (to which, after conception, she has usually no great inclination) lest there be a double or superfœtation; which is the adding of one embryo to another. Let her beware she lift not her arms too high, nor carry too great burthens, nor when she repose herself on hard or uneasy seats. Let her moderately use meat of good juice, and easy concoction; and let her wine be neither too strong nor too sharp, but a little mingled with water, or if she be very abstemious, she may use water wherein mustard or cinnamon is boiled. Let her avoid fastings, thirst, watching, mourning, sadness, anger, and all other perturbations of the mind. Let none present any thing, or unwholesome thing to her, not so much

as name it, lest she should desire it, and not be able to get it, and so either cause her to miscarry, or the child have some deformity on that account. Let her belly be kept loose, with prunes, raisins, or manna in her broth. And let her use the following electuary, to strengthen the womb and the child.

Take conserve of burrage, bugloss, and red roses, of each 2 ounces; of balm an ounce, citron-peel and Sheb's mirobolans candied, each an oz. extract of wood aloes, a scruple; pearl prepared, half a dr. red coral, ivory, each a dr. precious stones each a scruple; candied nutmegs, 2 dr. and with syrup apples and quinces, make an electuary.

Let her use the following Rules.

Take pearls prepared, 1 dr. red coral prepared, and ivory, each half a dr. precious stones, each a scrup. yellow citron peels, mace, cinnamon, cloves, each half a dr. saffron a scrup. wood aloes, half a scrup. ambergrease 6 dr. and with 6 oz. of sugar, dissolved in rose water, make rousls. Let her apply strengtheners to the navel, of nutmegs, mace, mastich, made up in bags, or a toast dipped in marmsey, sprinkled with powder of mints. If she happens to desire clay, chalk, or coals, (as many women with child do) give her beans boiled with sugar; and if she happens to long for any thing which she can't obtain, let her presently drink a large draught of pure cold water.

Rules for the Third Month.

IN this month and the next, to be sure to keep from bleeding; for tho' it may be safe at other times, it will not be so to the end of the 4th month. And yet if too much blood abound, or some incident disease happen, which requires evacuation, you may use a cupping glass, with scarification, and a little blood may be drawn from the shoulders

and

and arms, especially, if she has been accustomed to bleed. Let her also take care of lacing herself too straightly, but give herself more liberty than she used to do; for inclosing her belly in too strait a mould, she hinders the infant from taking its free growth, and often makes it come before its time.

Rules for the Fourth Month.

IN this month you ought also to keep the child-bearing woman from bleeding, unless in extraordinary cases; but when this month is past, blood-letting and physic may be permitted, if it be gentle and mild; and perhaps it may be necessary to prevent abortion. In this month she may purge in an acute disease; but purging may be only used from the beginning of this month, to the end of the 6th; but let her take care, that in purging, she uses no vehement medicine, nor very bitter, as aloes which is an enemy to the child, and opens the mouth of the vessels; neither let her use coloquintida, nor scammony, nor turbith; but she may use cassia, manna, rhubarb, agarick, and senna; but dyacidonium purgans is best, with a little of the electuary of the juice of roses.

Rules for the Fifth, Sixth, and Seventh Month.

IN these months child-bearing women are often troubled with coughs, heart-beating, fainting, watching, pains in the loins and hips, and bleeding. The cough is from a sharp vapour, that comes to the jaws and rough artery from the terms, or from the thin part of that blood gotten into the veins of the breast, or falling from the head to the breast; this endangers abortion, and strength fails from watching; therefore purge the humours that fall from the breast, with rhubarb and agarick, and

strengthen the head as in a catarrh, and give sweet lenitives, as in a cough. Palpitation and fainting arises from vapours that go to it by the arteries, or from blood that aboundeth, and cannot get out at the womb, but ascends, and oppresseth the heart; and in this case cordials should be used both inwardly and outwardly. Watching is from sharp dry vapours, that trouble the animal spirits; and in this case use frictions, and let the woman wash her feet at bed-time, and let her take syrup of poppies, dried roses, emulsions of sweet almonds and white poppy seeds. If she be troubled with pains in her loins and hips, as in these months she is subject to be from the weight of her child, who is now grown big and heavy, and so stretcheth the ligaments of the womb, and parts adjacent; let her hold it up with swathing bands about her neck. About this time also the woman often happens to have a flux of blood, either at the nose, womb, or hæmorrhoids, from plenty of blood, or from the weakness of the child that takes it not in, or else from evil humours in the blood that stirs up nature to send it forth. And sometimes it happens that the vessels of the womb may be broken, either by some violent motion, fall, cough, or trouble of mind, for any of these will work that effect; and this is so dangerous, that in such a case the child cannot be well; but if it be from blood only, the danger is no less, provided it flows by the veins of the neck of the womb, for then it prevents plethory, and takes not away the nourishment of the child; but if it proceeds from the weakness of the child, that draws it not, abortion of the child often follows, or hard travail, or else she goes beyond her time. But if it flows by the inward veins of the womb,

womb, there is more danger by the openness of the womb, if it come from evil blood; the danger is alike from cacochimy, which is like to fall upon both. If it arises from plethory, open a vein, but with very great caution, and astringents, of which this following will be well: take pearls prepared, a scrup. red coral, 2 scrup. mace, nutmegs, each 2 dr. cinnamon, half a dr. make a powder, or with sugar rouls. Or give this powder in broth: take red coral, 1 dr. pearl, half a dr. precious stones, each half a scrup. red sander, half a dr. bole, 1 dr. sealed earth, tormentil roots, each 2 scrup. with sugar of roses, and manus christi; with pearl 5 dr. make a powder. You may also strengthen the child at the navel; and if there be a cacochimy, alter the humours; and if you may do it safely, evacuate. You may likewise use amulets in her hands, and about her neck. In a flux of hæmorrhoids beware of the pain; and let her drink hot wine with a toasted nutmeg. In these months the belly is also subject to be bound, but if it be without any apparent disease, the broth of a chicken, or of veal foddren with oil, or with the decoction of mallows, or marsh-mallows, mercury, and linseed oil put up in a clyster, will not be amiss, but in less quantity than is given in other cases: to wit, of the decoction, 5 ounces, of common oil, 3 ounces, of sugar, 2 ounces, of cassia fistula, 1 oz. But if she will not take a clyster, 1 or 2 yolks of new-laid eggs, or a few peale portage warm, with a little salt and sugar, supped up a little before meat, will be very convenient: but if her belly should be distended, and stretched out with wind, a little fennel-seed and anniseed reduced into powder, and mingled with honey and sugar, made after the manner of an electuary, will do very well. Also if the thighs and

38 THE EXPERIENCED MIDWIFE.

feet swell, let them be anointed with oxphrodinum, which is a liquid medicine made with vinegar and rose water, mingled with a little salt.

Rules for the Eighth Month.

THE eighth is commonly the most dangerous, and therefore the greatest care and caution ought to be used; and her diet ought to be better in quality, but not more, nor indeed so much in quantity as before; but as she must abate her diet, so she must increase her exercise: and because then women with child, by reason the sharp humours after the belly, are accustomed to weaken their spirits and strength; they may well take before meat an electuary of diarrhodon or aromaticum rosatum, or diarmargariton; and sometimes they may like a little honey, as they will loath and nauseate their meat, may take green ginger, condited with sugar, or the rinds of citron and oranges condited. And let her often use honey for the strengthening of the infant. When she is not far from her labour, let her eat every day seven roasted figs before meat; and sometimes let her lick a little honey. But let her beware of salt and powdered meat, for it is neither good for her, nor the child.

Rules for the Ninth Month.

IN the ninth month, let her have a care of lifting any great weight; but let her move a little more to dilate the parts, and stir up natural heat. Let her take heed of stooping, and neither sit too much, nor lie on her sides, lest thereby she gives the child an occasion to turn itself, but let her lie with her face upwards, or upon her back: neither ought she to bend herself much, lest the child be unfolded in the umbilical ligament, by which means it often perisstheth. Let her walk and stir often, and let her exercise be rather to go upwards than downwards: let her

her diet now especially be light and easy of digestion; as damask prunes with sugar, or figs and raisins, before meat, and also the yolk of eggs. Flesh and broth of chickens, birds, partridges, and pheasant: astringent and roasted meats, with rice, hard eggs, miller, and such like other things are very proper, bath of sweet water, with emollient herbs, ought to be used by her this month, with some intermission. And after the bath, let her belly be anointed with oil of roses and violets; but for her privy parts, it is better to anoint them with the fat of hens, geese, or ducks, or with oil of lillies, and the decoction of linseed and fenugreek, boiled with oil of linseed and marsh-mallows, or with the following lineament.

Take of mallows and marsh-mallows, cut and shred, of each 1 oz. of linseed, 1 oz. let them be boiled from 20 oz. of water to 10; then let her take 3 oz. of the boiled broth: of oil of almonds, and oil of flower-de-luce, of each 1 oz. of deer's suet, 3 oz. let her bathe with this, and anoint her with it warm.

If for 14 days before the birth, she do every morning and evening bathe and moisten her belly with muscadine and lavender water, the child will be much strengthened thereby. And if every day she eat roasted bread, it will hinder any thing from growing to the child. Her privy parts may be also gently stroaked down with this fomentation.

Take 3 oz. of linseed; of mallows and marsh-mallows sliced, of each a handful; let them be put into a bag, and boiled immediately; and let the woman with child, every morning and evening take the vapour of this decoction in a hollow stool, taking great heed that no wind or air come to her in any part, and then let her wipe the part so anointed

with a linen cloth, that she may anoint the belly and groins, as at first. When she is come so near her time as to be within 10 or 14 days thereof, if she begins to feel any more than ordinary pain, let her use every day the following.

Take mallows and marsh-mallows, of each one handful; camomile, hard mercury, maiden-hair, of each half a handful; of linseed, 4 oz. let them be boiled in such a sufficient quantity of water, as may make a broth therewith. But let her not sit too hot upon the seat, nor higher than a little above her navel; nor let her sit on it longer than above half an hour, lest her strength languish and decay; for it is better to use it often, than to stay too long in it. And thus have I shewn how a child-bearing woman ought to govern herself in each month during her pregnancy; how she must order herself at her delivery, shall be shewn in another chapter, after I have first shewn the industrious midwife how the child is formed in the womb, and the manner of its decumbiture there.

C H A P. I.

Of the Parts proper to a Child in the Womb; how it is formed there, and the manner of its situation therein.

IN the last chapter I treated of conception, shewed what it was, how accomplished, its signs; and how she who had conceived ought to order herself during the time of her pregnancy: now, before I come to speak of her delivery, it is necessary that the midwife be first acquainted with the parts proper to a child in the womb; and also, that she shews how it is formed, and the manner of its situation and decumbiture there; which are so necessary to her; that without the knowledge thereof, no one can tell how to deliver a woman as she ought. This
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THE EXPERIENCED MIDWIFE. 41

therefore shall be the work of this chapter. I shall begin with the first of these.

Sect. 2. *Of the Parts proper to a Child in the Womb.*

IN this section I must first tell you what I mean by the parts proper to the child in the womb, and they are only those that either help or nourish it, whilst it is lodged in that dark repository of nature, and that help to cloathe and defend it there; and are cast away, as of no more use, after it is born; and these are 2; to wit, the umbellicurs, or navel vessels, and the secundinum: by the first it is nourished, and by the second cloathed and defended from wrong. Of these I shall speak distinctly, and first,

Of the Umbellicurs, or Navel Vessels.

THESE are 4 in number, viz. 1 Vein, 2 arteries, and the vessel which is called *urachos*.
 1. The vein is that by which the infant is nourished, from the time of its conception, till the time of its delivery; till being brought into the light of this world, it has the same way of concocting its food that we have. This vein ariseth from the liver of the child, and is divided into 2 parts when it hath passed the navel; and these 2 are again divided and subdivided, the branches being upheld by the skin called *chorion*, (of which I shall speak by-and-by) and are joined to the veins of the mother's womb, from whence they have their blood for the nourishment of the child. 2. The arteries are 2 on each side, which proceed from the black branches of the great artery of the mother; and the vital blood is carried by these to the child, being ready concocted by the mother. 3. A nervous or sinewy production is led from the bottom of the bladder of the infant to the navel, and this is called *urachos*; and

its use is to convey the urine of the infant from the bladder to the *alantois*. Anatomists do very much vary in their opinions concerning this, some denying any such thing to be in the delivery of women; and others, on the contrary affirming it: but experience has testified there is such a thing. For *Bartholomew Carbrolius*, the ordinary doctor of anatomies to the college of physicians at *Montpelier*, in *France*, records the history of a maid, whose water being a long time stopped, at last issued out thro' her navel; and *Johannes Fernelius* speaks of the same thing that happened to a man of thirty years of age, who having a stoppage in the neck of the bladder, his urine issued out of his navel, many months together, and that without any prejudice at all to his health, which he ascribes to the ill lying of his navel, whereby the *urachos* was not well dried. And *Volchier Coitus* quotes such another instance in a maid of 34 years, at *Nuremburgh*, in *Germany*. These instances, tho' they happen but seldom, are very sufficient to prove, that there is such a thing as an *urachos* in men. These 4 vessels before mentioned, to wit, 1 vein, 2 arteries, and the *urachos*, do join near to the navel, and are united by a skin which they have from the *chorion*, and so become like a gut or rope, and are altogether void of sense; and this is that which the good women call the navel string. The vessels are thus joined together, that so they might neither be broken, severed, nor entangled; and when the infant is born are of no use, serve only to make up the ligament which stops the hole of the navel, and some other physical use, &c.

Of the Secundine, or after Birth.

SETTING aside the name given to this by the Greeks and Latins; it is called in *English* by the name of *secundine*, *after birth*, and *after burthen*; which are held to be four in number.

1. The first is called *placenta*, because it resembles the form of a cake, and is knit both to the navel and *chorion*, and makes up the greatest part of the secundine or after birth. The flesh of it is like that of the milt, or spleen, soft red, and tending something to blackness, and hath many small veins and arteries in it; and certainly the chief use of it is for the containing the child in the womb.

2. The second is the *chorion*. This skin, and that called the *amniois*, involve the child round, both above and underneath, and on both sides which the *alantois* doth not; this skin is that which is most commonly called the secundine, as it is thick and white, garnished with many small veins and arteries, ending in the *placenta*, before named, being very light and slippery. Its use is not only to cover the child round about, but also to receive and safely bind up the roots, and the veins and arteries, or navel vessels before described.

3. The third thing which makes up the secundine is the *alantois*, of which there is a great dispute among anatomists; some say there is such a thing, and others there is not; those that will have it to be a membrane, say it is white, soft, and exceeding thin, and just under the *placenta*, where it is knit to the *urachos*, from whence it receives the urine: and its office is to keep it separate from the sweat, that the saltness of it may not offend the tender skin of the child.

4. The fourth and last covering of the child is called *amniois*, and it is white, soft, and transpa-

rent, being nourished by some very small veins and arteries. Its use is not only to enwrap the child round, but also to retain the sweat of the child.

Having thus described the parts proper to a child in the womb, I will now proceed to speak of the formation of the child therein, as soon as I have explained the hard terms in this section; that those for whose help this is designed, may understand what they read. There is none sure can be so ignorant as not to know that a vein is that which receives blood from the liver, and distributes it in several branches to all the parts of the body. *Arteries* proceed from the heart, are in a continual motion, and by their continual motion quicken the body. *Nerve* is the same with sinew, and is that by which the brain adds sense and motion to the body. *Placentia* properly signifies a sugar-cake; but in this section it is used to signify a spongy piece of flesh resembling a cake, full of veins and arteries, and is made to receive the mother's blood appointed for the infant's nourishment in the womb. *Chorion* is the outward skin which compasseth the child in the womb. The *amnios* is the inner skin, which compasseth the child in the womb. The *alantois* is the skin that holds the urine of the child during the time that it abides in the womb; *urachos* is the vessel that conveys the urine from the child in the womb to the *alantois*. I now proceed to

Sect. 2. *Of the formation of the Child in the Womb.*

TO speak of the formation of the child in the womb, we must begin where nature begins; and that is the act of coition, in which the womb having received the generative seed, without which there can be no conception, the womb immediately shut up itself so close, that not the point of a needle

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can enter the inward orifice; and this it does partly to hinder the issuing out of the seed again, and partly to cherish it by an imbred heat, the better to provoke it to action; which is one reason that womens bellies are so lank at their first conception. The woman having thus conceived, the first thing which is operative in the conception, is the spirit, whereof the seed is full, which nature quickening by the heat of the womb, stirs it up to action. This seed consists of very different parts, of which some are more and some are less pure. The internal spirits thereof separateth those parts that are less pure, which are thick, cold, and clammy, from them that are more pure and noble. The less pure are cast to the outsides, and with them the seed is circled round, and of them the membranes are made, in which that seed which is the most pure is wrapped round, and kept close together, that it may be defended from cold, and other accidents, and operate the better.

The first thing that is formed, is the *amnios*, the next the *chorion*, and they enwrap the seed round, as it were a curtain. Soon after this, (for the seed thus shut up in the woman lies not idle) the navel vein is bred, which pierceth those skins, being yet very tender, and carries a drop of blood from the vein to the mother's womb, to the seed; from which drop is formed the liver, from which liver there is quickly bred the *vene cava*, or chief vein from which all the rest of the veins that nourish the body spring; and now the seed hath something to nourish it, whilst it performs the rest of nature's work, and also blood administered to every part of it to form flesh.

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This vein being formed, the navel arteries are soon after formed, then the great artery, of which all others are but branches, and then the heart; for the liver furnisheth the arteries with blood to form the heart, the arteries being made of seed, but the heart and the flesh of blood. After this the brain is formed, and then the nerves, to give sense and motion to the infant. Afterwards the bones and flesh are formed, and of the bones, first the *vertebrae* or chin bones, and then the skull, &c.

As to the time in which this curious part of Nature's workmanship is formed, physicians assign four different seasons, wherein this microcosm is formed, and its formation perfected in the womb: the first is immediately after coition; the second time of forming, say they, when the womb by the force of its own innate power and virtue, makes a manifest mutation or coagulation in the seed, so that all the substance thereof seems coagulated flesh and blood, which happens about the 12th or 14th day after copulation; and tho' this concreation of fleshy mass abound with spirits, yet it remains undistinguishable, without any form, and may be called a rough draught of the *fetus* or *embryo*. The 3d time in which this fabric is come to some farther maturity, is when the principal parts may be in some measure distinguished; and one may discern the liver, umbilical veins, arteries, nerves, brain, and heart; and this is about 18 days after conception. The 4th and last time assigned by physicians for the formation of the child, is about the 30th day after conception, for a male, but for a female, they tell us 42, or 45 days, is required, tho' for what reason I know not; nor does it appear by the birth; for if the male receives its formation 15 days sooner than the female, why should it not be born so much sooner too?

too? But, as to that, every day's experience shews us the contrary; for women to go the full time of 9 months both with male and female. But at this time of 30 days (or some will have it 45) the outward parts may be also seen exquisitely elaborate; and distinguished by joints; and from this time the child begins to be animated, tho' as yet there is no sensible motion; and has all the parts of the body, tho' small and very tender, yet entirely formed and figured, altho' not longer in the whole than one's middle finger: and from thence forward, the blood flowing every day more and more to the womb, not by intervals, like their courses, but continually, it grows bigger and stronger to the end of 9 months, being the full time of a woman's ordinary labour.

Very great have been the disputes among both philosophers and physicians, about the nourishment of the child in the womb, both as to what it is, and which way it receives it. *Athenion* was of opinion that the infant drew in its nourishment by his whole body, because it is rare and spongy, as a sponge sucks in water on every side, and so he thought the infant sucked blood, not only from its mother's veins, but also from the womb. *Democritus* held, that the child sucked in the nourishment at its mouth. *Hippocrates* affirms, that the child sucks in both nourishment and breath by its mouth from the mother, for which he gives 2 reasons; 1. That it will suck as soon as it is born, and therefore must have learnt to suck before. 2. Because there are excrements found in the guts as soon as it is born. But either of these reasons are sufficient to prove his assertion: for as to the first, that the child will suck as soon as it is born, 'tis from a natural instinct; for take a young cat, that never saw her dam catch

a mouse, and she will catch mice herself as soon as she is able: and as to his second reason, it is a sufficient answer to say, that the excrements found in the guts of an infant newly born, are not excrements of the first concoction, which is evident, because they don't stink; but are the thickest part of the blood, which is conveyed from the vessels of the spleen to the guts. Having therefore said enough to confute the opinion of the child's receiving its nourishment by the mouth, I do affirm, that the child receives its nourishment in the womb by the navel; and that it should be so, is much more consonant to study and reason: which being granted, it will easily follow, that the nourishment the child receives is by pure blood conveyed into the liver by the portal vein, which is a branch of the *vena portæ*, or gate vein, and passeth to the small veins of the liver. Here this blood is made more gross, and the thicker and rarer part of it is conveyed to the spleen and kidneys, and the thick excrement of it to the guts, which is that excrement found there shoon as they are born. The pure part is conveyed to the *vena cava*, and by it distributed throughout the body, by the small veins, which like so many small rivulets, pass to every part of it. This blood is accompanied (as all blood is) with a certain watery substance; the better to convey it thro' the passage it is to run in; which in men is breathed out by sweating, and contained in the urine; as I have already said.

Sec. 3. Of the manner of the Child's lying in the Womb.

Now to shew after what manner the child lies in the womb, a thing so essential for a midwife to know, that she can be no midwife that's ignorant of it; and yet even about this authors extremely

trremely differ; for there is not 2 in 10 that agree what is the form that the child lies in, in the womb, or in what fashion it lies there; and yet this may arise in a great measure from the different figure that the child is found in, according to the different times of the woman's pregnancy; for near the time of its deliverance out of those winding chambers of nature, it oftentimes change the form in which it lay before, for another: *Hippocrates* affirms the child is so placed, in the womb, as to have his hands, his knees, and his head bent down towards his feet; so that he lies round together, his hands upon his knees, and his face between them; so that each eye toucheth each thumb, and his nose betwixt his knees; and *Bartholinus* was also of the same opinion. *Columbus* describes the posture of the child thus; the right arm bowed, the fingers whereof under the ear, and above the neck, the head bowed down, so that the chin touch the breast, the left arm bowed above both breast and face; and the left arm is propped up by the bending of the right elbow; the legs are left upwards, the right of which is so lifted up, that the thigh toucheth the belly; the knees the navel; the heel toucheth the left buttock, and the foot is turned back, and covereth the secrets; the left thigh toucheth the belly, and the leg is lifted to the breast, the back lying outward. And thus much shall suffice touching the opinion of authors.

I will now shew the several situations of the child in the mother's womb, according to the different times of pregnancy, by which those that are contrary to nature, and are the chief cause of all ill labours, will be the more easily conceived by the understanding midwife. It ought therefore in the first place to be observed, that the infant, as well
male

male as female, are generally situated in the midst of the womb; for tho' sometimes to appearance, a woman's belly seems higher on one side than the other, yet it is so with respect to her belly only, and not of her womb, in the midst of which it is always placed.

But in the second place a woman's great belly makes different figures, according to the different times of pregnancy; for when she is young with child, the *embryo* is always found of a round figure, a little oblong, having the spine moderately turned inwards, the thighs folded, and a little raised, to which the legs are so joined that the heels touch the buttocks; the arms are bending, and the hands placed upon the knees, towards which the head is inclining forwards, so that the chin toucheth the breast, in which posture it resembles one sitting to ease nature, and stooping down with the head to see what comes from him. The spine of his back is at that time placed towards the mother's, the head uppermost, the face forwards; and the feet downwards; and proportionably to its growth, it extends its members by little, which were exactly folded in the first month. In this posture it usually keeps till the 7th or 8th month, and then by a natural propensity and disposition of the upper part of the body, the head is turned downwards toward the inward orifice of the womb, tumbling as it were over its head, so that then the feet are uppermost, and the face towards the mother's great gut; and this turning of the infant in this manner, with his head downwards, towards the latter end of a woman's reckoning, it is so ordered by nature, that it may thereby be the better disposed for its passage into the world, at the time of its mother's labour, which is not then far off; (and indeed several children turn

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not at all, until the very time of birth) for in this posture all its joints are most easily extended in coming forth; for by this means the arms and legs cannot hinder its birth, because they cannot be bended against the inward orifice of the womb; and the rest of the body, being very supple, passeth without any difficulty after the head, which is hard and big, being past the birth. 'Tis true, there are divers children that lies in the womb in another posture, and comes to the birth with their feet downwards, especially if they be twins: for then by their different motions they do so disturb one another, that they seldom come both in the same posture at the time of labour; but one will come with the head, and another with the feet, or perhaps lie cross: and sometimes neither of them will come right. But however the child may be situated in the womb, or in whatever posture it presents itself at the time of birth, if it be not with its head forwards, as I have before described, it is always against nature; and the delivery will occasion the mother more pain and danger, and require greater care and skill from the midwife, than when the labour is more natural; of which the following scheme will give a great demonstration; which is the form of a child in the womb ready for the birth, naked and disrob'd of all its tunicles, proper and common.

C H A P. IV.

A Guide for Women in Travail, shewing what is to be done when they fall in Labour, in order for their Delivery.

THE end of all we have been treating of is the bringing forth a child into the world, with safety both to the mother and the infant; and the whole time of a woman's pregnancy may very well

well be termed a kind of labour; for from the time of her conception to the time of her delivery she labours under many difficulties, is subject to many distempers, and in continual danger, from one effect to another, till the time of birth comes, and when that comes, the greatest labour and travail comes along with it, insomuch that then all her other labours are forgotten, and that only is called the time of her labour, and to deliver her safely is the principal business of the midwife. And to assist her therein, shall be the chief design of this chapter. The time of the child's being ready for its birth, when nature endeavours to cast it forth, is that which is properly the time of a woman's labour. Nature then labouring to be eased of its burthen. And since many child-bearing women (especially of their first child) are often mistaken in their reckoning, and so when they draw near their time, take every pain they meet with for their labour, which often prove prejudicial and troublesome to them, when it is not so: I will in the first section of this chapter set down some signs by which a woman may know when the true time of her labour is come.

Sect. 1. The Signs of a true Time of a Woman's Labour.

WHEN women with child, especially of their first, perceive any extraordinary pains in their belly, they immediately send for their midwife, as taking it for their labour, and then if the midwife be not a skilful and judicious woman, to know the time of her labour, but takes it for granted, without further enquiry, (for some such there are) and so goes about to put her into labour, before nature is prepared for it, she may endanger the lives both of mother and child, by breaking the

amnois and chorion. These pains which are often mistaken for labour, are removed by warm cloths laid to the belly, and the application of a clyster or two, by which those pains that proceed a true labour, are rather furthered than hindered. There are also cother pains incident to women in that condition, from the flux of the belly, which are easily known by the frequent stools that follow them.

The signs therefore of labour, some few days before, are, the woman's belly, which before laid high, sinks down and hinders her from walking so easily as she used to do; there flows from the womb slimy humours, which nature has appointed to moisten and smooth the passage, that its inward orifice may be the more easily dilated, when there is occasion; which beginning to open at that time suffers that slime to flow away, which proceeds from the glandules called *proflata*. These are signs preceding labour.

But when she is presently falling into labour, the signs are great pains about the region of the reins and loins, which coming and retreating by intervals, answer to the bottom of the belly by congruous throws, and sometimes the face is red and inflamed, the blood being much heated by the endeavours a woman makes to bring forth her child; and likewise because during these strong throws, her respiration is intercepted, which causes the blood to have recourse to her face; also her privy parts are swelled, by the infants head lying in the birth, which, by often thrusting, causes those parts to descend outwards. She is much subject to vomiting, which is a sign of good labour and speedy delivery, though by ignorant women thought otherwise; for good pains are thereby excited and redoubled; which vomiting is occasioned by the sympathy

sympathy there is between the womb and the stomach. Also when the birth is near, women are troubled with a trembling in the thighs and legs, not with cold, like the beginning of an ague fit, but with the heat of the whole body: tho' it must be granted, this does not happen always. Also if the humours, which then flow from the womb, are discoloured with blood, it is that which the midwives call *showers*, and it is an infallible mark of the birth's being near. And if then the midwife puts up her fingers into the neck of the womb, she will find the inner orifice dilated; at the opening of which, the membranes of the infant containing the waters, present themselves, and are strongly forced downwards with each pain she hath; at which time one may perceive them sometimes to resist, and then again press forward the finger, being more or less hard and extended, according as the pains are stronger or weaker. These membranes, with the waters in them, when they are got before the head of the child, which the midwives call the gathering of the waters, resemble, to the touch of the finger, those eggs which have yet no shell, but are covered only with a simple membrane. After this, pains still redoubling, the membranes are broken by a strong impulsion of the waters which presently flow away, and then the head of the infant is presently felt naked, and presents itself at the inward orifice of the womb. When those waters come thus away, then the midwife may be assured the birth is very near; this being the most certain sign that can be, for the *amniotic* being broken, which contained those waters, by the pressing forward of the birth, the child is no more able to subsist long in the womb afterwards, than a naked man in a heap of snow.

Now

Now these waters, if the child come presently after them, facilitate the labour, by making the passage slippery; and therefore let no midwife (as some have foolishly done) endeavour to force away the water: for nature knows best when the true time of the birth is; and therefore retains the water till the time. But if by accident the water breaks away too long before the birth, then such things as will hasten it may be safely admitted. And what those are, I shall shew in another section.

Sect. 3. *How a Woman ought to be ordered, when the time of her Labour is come.*

WHEN it is known that the true time of her labour is come, by the signs laid down in the foregoing section, of which those that are most to be relied on, are pains and strong throws in the belly, forcing downwards towards the womb, and a dilation of the inward orifice, which may be perceived by touching it with the finger, and the gathering of the waters before the head of the child, and thrusting down of the membranes which contain them; through which, between the pains, one may in some manner, with the finger, discover the part which presents, (as was said before) especially if it be the head of the child, by its roundness and hardness: I say, if these things concur, and are evident, the midwife may be sure it is the time of her labour; and care must be taken to get all things ready that are necessary to comfort the woman in that time; and the better to help her be sure to see that she be not strait laced. You may also give her a pretty strong clyster, or more, if there be occasion; provided it be done at the beginning, and before the child be too forward; for it will be difficult for her to receive them afterwards. The benefit

benefit accruing hereby will be, that they excite the gut to discharge itself of its excrements; that so the *rectum* being emptied, there may be more space for the dilation of the passage; likewise to cause the pains to bear more downward, through the endeavour she makes when she is at stool; and in the mean time all other necessary things for her labour should be put in order, both for the midwife and the child. To this end some will get a midwife's stool; but a pallet-bed girted is much the best way, placed near the fire, if the season so require; which pallet-bed ought to be so placed, that there may be easy access to it on every side, so that the woman may be the more readily assisted, as there is occasion.

If the woman abounds with blood; to bleed her a little may not be improper; for thereby she will both breathe the better, and have her breasts more at liberty; and likewise more strength to bear down her pain: and this she may do without danger, because the child being about that time ready to be born, has no more need of the mother's blood for its nourishment: besides, this evacuation does many times prevent her having a fever after delivery. Also before her delivery, if her strength will permit, let her walk up and down her chamber; and that she may have strength so to do, it will be necessary to give her some good strengthening things, such as jelly broth, new laid eggs, or some spoonfuls of burnt wine; and let her by all means hold out her pains, bearing them down as much as she can, at the time when they take her: and let the midwife from time to time touch the inward orifice with her finger, to know whether the waters are ready to break, and whether the birth will follow soon after; let her also anoint the woman's privi-

ties with emollient oil, hog's-grease, and fresh butter; if she finds they are hard to be dilated.

Let the midwife be likewise all the while near the labouring woman, and diligently observe her gestures, complaints, and pains, for by this she may guess pretty well how her labour advanceth; for when she changeth her groans into loud cries, it is a great sign the birth is near; for at that time her pains are greater and more frequent. Let the woman likewise by intervals, rest herself on her bed, to renew her strength, but not too long, especially if she be little, short, and thick, for such women have always worse labour, if they lie long on their beds in their travail; it is better therefore, that they walk as much as they can about the chamber, the women supporting her under their arms, if it be necessary; for by this means the weight of the child causeth the inward orifice of the womb to dilate sooner than in bed, and her pains be stronger and frequenter, her labour will not be near so long.

Let not the labouring woman be concerned at those qualms and vomitings which perhaps she may find come upon her; for they will be much to her advantage in the issue, however uneasy she may be for the time, for they further her throws and pains, provoking downwards. But to proceed.

When the waters of the child are ready, and gathered, which may be perceived through the membranes to present themselves to the inward orifices of the bigness of the whole dilation, the midwife ought to let them break of themselves; and not like some hasty midwives, who being impatient of the woman's long labour, break them, intending thereby to hasten their business, when instead thereof, thereby retard it: for by the too hasty breaking these waters, which nature designed to
cause

cause the infant to slide forth the more easy, it remains dry, by which means the pains and throws of the labouring woman are less efficacious to bring forth the infant, than they would otherwise have been; it is therefore much the better way to let the waters break of themselves; after which the midwife may with ease feel the child bare, by that which first presents, and thereby discern whether it comes right, that is, with the head foremost, for that's the most proper and natural way of its birth; if the head comes right, she will find it round, big, hard, and equal; but if it be in any other part, she will feel it unequal, rugged, and soft or hard, according to the nature of the part it is. And this being the true time when the woman ought to deliver, if nature be not wanting to perform its office: and therefore when the midwife finds the birth thus coming forward, let her hasten to assist and deliver it, for it ordinarily happens soon after, if it be natural.

But if it happens as sometimes it may, that the water breaks away too long before the birth; in such a case, those things that hasten nature may be safely admitted; to which purpose, let her make use of pennyroyal, dittany, juniper-berries, red coral, betony, feverfew boiled in white wine, and a draught of it drank; or it would be much better to take the juice of it when it is in its prime, (which is in May) and having clarified it, let them make it into a syrup, with double its weight of sugar, and keep it by them all the year, to use when occasion calls for it. Mugwort, used in the same manner, is also good in this case. Also a drachm of cinnamon powder given inwardly profits much in this case. And so does ransy bruised and applied to the privities, or an oil of it so made, and

used

used as you were taught before. The stones *arites* held to the privities are of extraordinary virtue, and instantly draws away both the child and after burthen; but great care must be taken to remove it presently, or it will draw forth the womb and all; for such is the magnetic virtue of this stone, that both child and womb follow it as readily as iron doth the load stone, or as the load-stone doth the North star.

There are many other things that physicians affirm are good in this case: among which are an ass's or an horse's hoof, hung near the privities; a piece of red coral hung near the said place; a load-stone helps much, held in the woman's left hand, the skin which a snake hath cast off, girt about the middle next the skin. These things are mentioned by *Mizaldus*, but setting those things aside, as not so certain, notwithstanding *Mizaldus* quotes them, the following prescriptions are very good to give speedy deliverance to women in travail.

1. "A decoction of white wine made in savory and drunk.
2. "Take wild tansey, or silver weed, bruise it, and apply it to the woman's nostrils.
3. "Take date stones, and beat them to powder, and let her take half a drachm of them in white wine at a time.
4. "Take parsley, and bruise it, and press out the juice, and dip a linen cloth in it, and put it up so dipped into the mouth of the womb, it will presently cause the child to come away tho' it be dead, and will bring away the after-burthen. Also the juice of parsley is a thing of so great virtue (especially stone parsley) that being drunk by a woman with child, it cleanseth not only the womb, but also the child in the womb of all gross humours.
5. "A

5. "A scruple of castor in powder, in any convenient liquor, is very good to be taken in such a case; and also is 2 or 3 drops of spirit of castor in any convenient liquor; also 8 or 9 drops of spirit of myrrh, given to any convenient liquor, give speedy deliverance.

6. "Give a woman in such a case another woman's milk to drink, it will cause speedy delivery, and almost without any pain.

7. "The juice of leeks being drank with warm water, hath a mighty operation to cause speedy delivery.

8. "Take piony seeds, and beat them into powder, and mix the powder with oil, with which oil, anoint the loins and privities of the woman with child, it gives her deliverance very speedily, and with less pain than can be imagined.

9. "Take a swallow's nest, and dissolve it in water, strain it, and drink it warm, it gives delivery with great speed, and much ease."

Note this also in general, that all things that move the terms, are good for making the delivery easy, "Such is myrrh, white amber in white wine, or lilly water, 2 scruples, or a drachm; or, give a drop of oil of amber in vervain water; or, cassia lignea, dittany, each a drachm, cinnamon half a drachm, saffron a scruple; give a drachm; or, take borax mineral as a dram; cassia lignea, a scruple; saffron 6 grains, and give it in sack; or, take cassia lignea, a drachm; dittany, amber, of each half a drachm; cinnamon, borax, of each a drachm and a half; saffron a scruple, and give her half a drachm; or, give her some drops of the oil of hazel in convenient liquor; or 2 or 3 drops of oil of cinnamon in vervain water. Some prepare the secundine thus. Take the navel-string, and dry it in an oven; take a

drachm

drachms of the powder, cinnamon a drachm, saffron half a scruple, with juice of savin make torches; give 2 drachms; or wash the secundine in wine, and bake it in a pot; then wash it in endive-water and wine; take half a drachm of it; long pepper, galangal, of each half a drachm; plantain and endive seed, of each a drachm and a half; lavender seed 4 scruples; make a powder; or, take laudanum 2 drachms, storax, catamite, benzoin, of each half a drachm; musk, ambergrease, each 6 grains; make a powder, or torches for a fume. Or use pessaries to provoke the birth. Take galbanum dissolved in vinegar, an ounce; myrrh 2 drachms, saffron a drachm; with oil of orris make a pessary."

An Ointment for the Navel.

Take oil of keir 2 ounces, juice of savin an ounce, of leeks and mercury, each half an ounce; boil them to the consumption of the juice; and galbanum dissolved in vinegar, half an ounce, myrrh 2 drachms, storax liquid, a drachm; round birthwort, sowbread, cinnamon, saffron, a drachm, with wax make an ointment, and apply it.

If the birth be retarded thro' the weakness of the mother, refresh her with applying wine and soap to the nose, *confect. alkermes, diamosc. diamarg.*

These things may be applied to help nature in the delivery, when the child comes to the birth the right way, and yet the birth is retarded; but if she finds the child comes the wrong way, and she is not able to deliver the woman as she ought to be, by helping nature, and saving both mother and child, (for it is not enough to lay a woman, if it might be done by another with more safety and ease, and less hazard both to woman and child) then let her send speedily for better and more able help; and not, as I once knew a midwife, when a woman

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she was to deliver had hard labour, rather than a man-midwife should be sent for, would undertake to deliver the woman herself, (tho' told by others that it was a man's business) and in her attempting it, brought away the child, but left the head of the infant behind in the mother's womb; and had not a man-midwife been presently sent for, the mother had lost her life, as well as the child. Such persons may rather be termed butchers than midwives. But supposing the woman's labour to be natural, I will next shew what the midwife ought to do, in order to her delivery.

C H A P. V.

Of Natural Labour; what it is, and what the Midwife is to do in such a Labour.

SECT. 1. *What Natural Labour is.*

THERE are 4 things necessary to denominate a woman's labour natural; the first is, that it be at the full time; for if a woman comes before her time, it cannot properly be termed natural labour, neither will it be so easily, as if she had completed her nine months. The second thing is, that it be speedy, and without an ill accident; for when the time of the birth is come, nature is not dilatory in the bringing of it forth, without some ill accident intervene, which renders it unnatural. The fourth thing requisite to a natural birth is, that the child come right: for if the position of the child in the womb be contrary to what is natural; and the event proves it so too often, making that which should be a time of life, the death both of the mother and the child.

Having thus told you what I mean by natural labour, I shall shew how the midwife ought to proceed herein, in order to the woman's delivery.

When

When all the foregoing requisites concur, and after the waters be broke of themselves, let the labouring woman be conducted to a pallet-bed, provided near the fire for that purpose, as has already been said, and let there rather be a quilt laid upon the pallet bedstead, than a feather-bed, having thereon linen and cloths in many folds, with such other things as are necessary, and may be changed according to the exigence requiring it, that so the woman may not be incommoded with blood, waters, and other filth, which is voided in labour. The bed ought so to be ordered, that the woman being ready to be delivered, should lye on her back upon it, having her body in a convenient posture; that is, her head and breast a little raised, so that she be between lying and sitting, for being so placed, she is best capable of breathing, and likewise will have more strength to bear her pains, than if she lay otherwise, or sunk down in her bed. Being so placed, she must spread her thighs abroad, folding her legs a little towards her buttocks, somewhat raised by a small pillow, underneath, to the end her rump should have more liberty to retire back; and let her feet be stayed against some firm things: besides this, let her take hold of some of the good women attending her, with her hands, that she may the better stay herself during her pains. She being thus placed near the side of her bed, having her midwife by, the better to assist upon occasion, let her take courage, and help her pains the best she can, bearing them down when they take her; which she must do by holding in her breath, and forcing herself as much as possible in like manner as when she goes to stool: for by such straining the *diaphragma*, or *midriff*, being strongly thrust downwards, necessarily forces down the womb, and child in it.

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64 THE EXPERIENCED MIDWIFE.

In the mean time let the midwife endeavour to comfort her all she can, exhorting her to bear her labour courageously, telling her it will be quickly over, and that there is no fear but that she will have a speedy delivery. Let the midwife also, having no rings on her hand, anoint it with fresh butter, and therewith dilate gently the inward orifice of the womb, putting her fingers ends into the entry thereof, and then stretch them one from the other, when her pains takes her; by this means endeavouring to help forward the child, and thrusting by little and little the sides of the orifice towards the hinder part of the child's head, anointing those parts also with fresh butter if it be necessary.

When the head of the infant is somewhat advanced into this inward orifice, the midwife's phrase is, It is crowned; because it girds and surrounds it just as a crown; but when it is so far, that the extremity begins to appear without the privy parts, they then say, The child is in the passage; and at this time the woman feels herself as if she was scratched or pricked with pins, and is ready to imagine, that the midwife hurts her; when it is occasioned by the violent distention of those parts, and the laceration which at sometimes the bigness of the child's head causeth there. When things are in this posture, let the midwife seat herself conveniently to receive the child, which will now come quickly; and with her fingers ends (which she must be sure to keep pared,) let her endeavour to thrust the crowning of the womb (of which I have before spoken) back over the head of the child. And as soon as it is advanced as far as the ears, or thereabouts, let her take hold of the two sides with her two hands, that when a good pain comes,

comes, she may quickly draw forth the child, taking care that the navel-string be not entangled about the neck, or any other part, as sometimes it is, lest thereby the after-burden be pulled with violence, and perhaps the womb also to which it is fastened and so either cause her to flood or else break the strings, both which are of bad consequence to the woman, whose delivery may thereby be rendered the more difficult. It must also be carefully heeded, that the head be not drawn forth strait, but shaking it a little from the one side to the other, that the shoulders may sooner and easier take their place, immediately after it be past; which must be done without losing any time, lest the head being past, the child be stoppt there by the largeness of the shoulders, and so come in danger of being suffocated and strangled in the passage, as it hath sometimes happened, for want of care therein. But as soon as the head be born, if there be need, she may slide in her fingers under the armpits, and the rest of the body will follow without difficulty.

As soon as the midwife hath in this manner drawn forth the child, let her put it on one side, lest the blood and water which follow immediately, should do it an injury by running into its mouth and nose, as it would do, if it lay on its back, and so endanger the choaking of it. The child being thus born, the next thing requisite is to bring away the after-burden; but before that, let the midwife be very careful to examine whether there be no more children in the womb; for sometimes a woman may have twins that expected it not; which the midwife may easily know by the continuance of the pains after the child is born, and the bigness of the mother's belly. But the
midwife

midwife may be more sure of it, if she puts her hand up to the entry of the womb, and finds there another water gathering, and a child in it presenting to the passage: and if she finds so, she must have a care of going about to fetch the after-birth, till the woman be delivered of all the children she is pregnant with. Wherefore the first string must be cut, being first tied with a thread 3 or 4 double, and fasten the other end with a string to the woman's thigh to prevent the inconvenience it may cause by hanging between the thighs. And then removing the child already born, she must take care to deliver her of the rest, whether more or less, observing all the same circumstances as were to the first. After which it will be necessary to fetch away the after-birth or births. But of that I shall treat in another section; and first shew what is to be done to the new-born infant.

Sect. 2. *Of the Cutting of the Child's Navel-string.*

THOUGH this is by many accounted but a trifle, yet great care is to be taken about it; and it shews none of the least art and skill of a midwife to do it as it should be: and that it may be so done, the midwife ought to observe, 1. The time. 2. The place. 3. The manner. 4. The event.

The time, is as soon as the infant comes out of the womb, whether it brings part of the after-birth with it or not; for sometimes the child brings into the world a piece of the *amniois* upon its head, and what the good women call the caul; and ignorantly attribute some extraordinary virtue to the child that is so born; but this opinion is only the effect of their ignorance; for when a child is born with such a crown (as some call it) upon its brows, it generally

generally betokens weakness, and denotes a short life. But to the matter in hand. As soon as the child is come into the world, consider whether it be weak or strong; and if it be weak, let the midwife gently put back part of the vital and natural blood into the body of the child by the navel, for that recruits a weak child, the vital and natural spirits being communicated by the mother to the child by its navel string. But if the child be strong, that operation is needless. Only let me advise you, that many children that are born seemingly dead, may be soon brought to life again, if you squeeze 6 or 7 drops of blood out of that part of the navel string which is cut off, and give it to the child inwardly.

As to the place in which it should be cut, that is, whether it should be cut long or short, it is that which authors can scarce agree in, and which many midwives quarrel about; some prescribing it to be cut at 4 fingers breadth, which is at the best but an uncertain rule, unless all fingers were of one size. It is a received opinion, that the parts adapted to generation, are either contracted, or dilated, according to the cutting of the navel string; and that's the reason that midwives are generally so kind to their own sex, that they leave a longer part of the navel string of a male than of a female; because they would have the male well provided for the encounters of *Venus*. And the reason they give why they cut that of a female more shorter, is, because they believe it makes them modest, and their privities narrower, which makes them more acceptable to their husbands. *Mizahus* was not altogether of the opinion of these midwives, and therefore he orders the navel string to be cut long in both male and female children; for which he

gives this reason, that the instrument of generation following the proportion of it; and therefore, if it be cut too short in a female, it will be a hinderance to her having of children. I will not go about to contradict this opinion of *Mizaldus*, because he was a great searcher into the mysteries of nature: and for that reason, I will acquaint you with two things more out of *Mizaldus*, that experience has made good. The one is, That if the navel-string of a child after it is cut, be suffered to touch the ground, the child will never holds it's water, neither sleeping nor waking, but will be subject to an involuntary making of water all its lifetime. The other is, That a piece of the child's navel string carried about one, so that it touch his skin, defends him that wears it, both from the falling sickness and convulsions.

As to the manner how it must be cut: let the midwife take a brown thread, 4 or 5 times double, of an ell long or thereabouts, tied with a single knot at each of the ends to prevent their entangling; and with this thread so accommodated (which the midwife must have in readiness before the woman's labour, as also a good pair of scissars, that so no time may be lost) let her tie the string within an inch of the belly with a double knot; and turning about the ends of the thread, let her tie two or more on the other side of the string, reiterating it again, if it be necessary; then let her cut off the navel another inch below the ligature, towards the after-birth: so that there only remains but two inches of the string, in the midst of which will be the knot we speak of; which must be so strait knit as not to suffer a drop of blood to squeeze out of the vessels; but care must be taken not to knit it so strait as to cut it in two; and therefore

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THE EXPERIENCED MIDWIFE, 69

the thread must be pretty thick, and pretty strait knit, it being better too strait than too loose; for some children have miserably lost their lives, with all their blood, before it was discovered, because the navel string was not well tied. Therefore, great care must be taken that no blood squeeze thro', for if there do, new knots must be made with the rest of the string. You need not fear to bind the navel string very hard, because it is void of sense; and that part of it which you leave on, falls off of its own accord in a very few days, ordinarily 6 or 7, and sometimes sooner. But rarely that it tarries longer than the eighth or ninth. When you have cut the navel string, then take care the piece that falls off, touch not the ground, for the reason I told you *Mizaldus* gave, which experience has justified.

As to the last thing I mentioned, which is the event, or consequence, or what follows cutting of the navel string. As soon as the navel string is cut off, apply a little cotton or lint to the place, to keep it warm, lest the cold enter into the body of the child, which it will most certainly do if you have not bound it hard enough. If the lint or cotton you apply to it be dipped in oil of roses, it will be the better: then having put another small rag 3 or 4 times double upon the belly. Upon the top of all, put another small bolster, and then swathe it with a linen swathe, 4 fingers broad, to keep it steady, lest by toiling too much, or by being continually stirred from side to side it comes to fall off before the navel string, which you left remaining, is fallen off. It is the usual custom of midwives to put a piece of burnt rag to it, which we commonly call tinder: but I would rather advise them to put a little of bole-armoniac, to it,

70 THE EXPERIENCED MIDWIFE,

because of its drying quality. But this shall suffice to be spoken, as to the cutting of the navel-string.

Sect. 3. *How to bring away the After-Burthen.*

A Woman cannot be said fairly to be delivered, tho' the child be born, 'till the after-burthen be also taken from her; herein differing from most animals, who, when they have brought forth their young, cast forth nothing else but some waters, and the membranes which contained them. But women have an after-labour, which sometimes prove more dangerous than the first: and how to bring it safely away, without prejudice to her, shall be my business to shew in this section.

As soon as the child is born, before the midwife either ties or cuts the navel-string, lest the womb should close, let her, having taken the string, wind it once or twice about one or two of the fingers of the left hand, joined together the better to hold it, with which she may draw it moderately, and with the right hand she may only take a single hold of it above the left, near the privities, drawing likewise with that very gently, resting the while the fore-finger of the same hand, extending and stretching forth along the string towards the entry of the *vagina*, always observing for the more facility, to draw it from the side where the burthen cleaves least, for in so doing, the rest will separate the better. And special care must be taken, that it be not drawn forth with too much violence, lest by breaking the string near the burthen, the midwife will be obliged to put her whole hand into the womb to deliver the woman; and she had need to be a very skilful person

that

that undertakes it, lest the womb, to which this burthen is sometimes very strongly fastened, be not drawn away with it, as it as sometimes happened. It is therefore best to use such remedies as may assist nature. And here take notice, that what brings away the birth, will also bring away the after-birth. And therefore, for the effecting this work, I will lay down the following rule.

1. Use the same means in bringing away the after-birth, that you made use of to bring away the birth; for the same care and circumspection is needful now, that was then.

2. Consider the labouring woman cannot but be much spent by what she has already undergone in bringing forth the infant, and therefore be sure to take care to give her something to comfort her. And in this case good jelly-broths, also a little wine with a toast in it, and other comforting things will be very necessary.

3. A little white hellebore in powder to make her sneeze, is in this case very proper.

4 Tansey and the stone *ærites*, applied as before directed, is also of good use in this case.

5. If you take the herb vervain, and either boil it in wine, or make a syrrup with the juice of it, which you may do by adding to it its double weight of sugar (having clarified the juice before you boil it) and a spoonful or two of that given to the woman is very efficacious to bring away the secundine; and featherfew and mugwort have the same operation taken as the former.

6. Alexander boiled in wine, and the wine drank: also sweet cervile, sweet cicely, angelica roots, and musters-wort, are excellent remedies in this case.

72 THE EXPERIENCED MIDWIFE.

Or if these fail, the smoak of marygolds received up a woman's privities, by a funnel; have been known to bring away the after-birth, even when the midwife let go her hold.

8. Which is all I shall add in this case. Boil mugwort in water till it be very soft, then take it out, and apply it in the manner of a poultice to the navel of a labouring woman; and it instantly brings away both birth and after-birth; but care must be taken to remove it as soon as they come away, lest by its longer tarrying, it should bring away the womb also. But thus much shall suffice to be spoken of bringing away the after-burthen in all natural labours.

Sect. 4. *Of Laborious and Difficult Labours, and how the Midwife is to proceed therein*

TO proceed in this section the more regularly, it will be necessary to acquaint the reader, that there are *three* sorts of bad labour, all painful and difficult; but not all properly unnatural. It will be necessary therefore to distinguish these.

The *first* of these bad labours it is that wherein the mother and child suffer very much by extreme pain and difficulty, even tho' the child come right, and this is distinguishably called laborious labour.

The *second* is that which is difficult, and differs not much from the former, except that besides those extreme pains; it is generally attended with some unhappy accident, which, by retarding the birth, causes the difficulty. And these difficulties being removed, accelerates the birth, and hastens delivery.

Some have asked what the reason is that women bring forth their children with so much pain? I answer, The sense of feeling is distributed to the whole

THE EXPERIENCED MIDWIFE. 73

whole body by the nerves, and the mouth of the womb being so strait that it must of necessity be dilated at the time of the woman's delivery, the dilating thereof stretches the nerves, and from thence comes the pain. And therefore the reason why some women have more pain in their labour than others, proceeds from their having the mouth of the *matrix* more full of nerves than others, as skilful anatomists do easily discover.

But to proceed: the best way to remove these difficulties that occasion such hard pains and labour as I am here to treat of, is to shew from whence they proceed: for the cause of any distemper being known, is as much as half the cure. Now the difficulty of labour proceeds either from the mother or child, or both.

From the mother, by reason of the indisposition of her body; or may be from some particular part only, and chiefly of the womb, as when the woman is weak, and the mother is not active to expel her burthen, or from weakness, or disease, or want of spirits; or it may be from some strong passion of the mind, with which she was before possessed; it may be also because she may be too young, and so may have the passages too strait; or too old, and then, if it be their first child, because her parts are too dry and hard, and cannot easily be dilated, as happens also to them which are too lean. Likewise those who are either small, short, or misshapen; as crooked women, who have not a breast strong enough to help their pains, and to bear them down, and persons that are crooked, having sometimes the bones of the passage not well shaped: the cholic also hinders labour, by preventing the true pains; and all great and acute pains; as when the woman is taken with a violent fever, a great
flooding,

flooding, frequent convulsions, bloody-flux, or any other great distemper.

Also excrements retained, cause much difficulty, and so does a stone in the bladder; or when the bladder is full of urine, without being able to void it; or when the woman is troubled with great and painful biles. It may also be from the passages, when the membranes are thick, the orifice too strait, and the neck of the womb is not sufficiently open, the passages are pressed and strained by tumors in the adjacent parts, or when the bones are too firm and will not open, which very much endangers mother and child; or when the passes are not slippery by reason of the waters having broke so soon, or of the membranes being too thin. The womb may be also out of order with respect to its bad situation, or conformation, having its neck too strait, hard, and callous, which may easily be so naturally, or may come by accident, being many times caused by a tumour, aposthume, ulcer, or superfluous flesh.

As to hard labour, occasioned by the child, it is when the child, happens to stick to a mole, or when it is so weak it cannot break the membranes, or if it be too big all over, or in the head only; or if the navel vessels are twisted about its neck; when the belly is hydropical, or when it is monstrous, having 2 heads, or being joined to another child; also when the child is dead, or so weak, that it can contribute nothing to its birth, likewise when it comes wrong, or when there are 2 more. And to all these various difficulties, there is oftentimes one more, and that is, the ignorance of the midwife, for want of understanding her business, hinders Nature in her work, instead of helping her.

Having thus looked into the causes of hard labour, I will now shew the industrious midwife how

she

THE EXPERIENCED MIDWIFE. 75

she may minister some relief to the labouring woman under these difficult circumstances. But it will require understanding and judgement in the midwife when she finds a woman in difficult labour, to know the particular obstruction, or cause thereof, that so a suitable remedy may be applied: as for instance, when it happens by the mother's being too young and too strait, she must be gently treated, and the passages anointed with oil, hog's lard, or fresh butter, to relax and dilate them the easier; lest there should happen a rupture of any part when the child is born, for sometimes the *peritonæum* breakes with the skin, from the privities to the fundament. But if a woman be in years, of her first child, let her lower parts be anointed to mollify the inward orifice, which in such a case being more hard and callous, does not easily yield to the distention of labour; the true cause why such women are longer in labour, and also why their children, being forced against the inward orifice of the womb (which as I have said, is a little callous) are born with great bumps and bruises on their heads. Those women that are very small and misshapen, should not be put to bed, at least till their waters are broke, but rather kept upright, and assisted to walk about the chamber, by being supported under her arms: for by that means they will breathe more freely, and mend their pains better than on the bed, because there they lay all on a heap. As for those that are very lean, and have hard labour from that cause, let them moisten their parts with oil and ointments, to make them more smooth and slippery, that the head of the infant and the womb be not so compressed and bruised by the hardness of the mother's bones which form the passage. If the cause be weakness, she ought to be

strengthened, the better to support her pains ; to which end give her good jelly-broths, and a little wine with a toast in it. If she fears her pains, let her be comforted, assuring her that she will not endure many more, but be delivered in a little time. But if her pains be slow and small, or none at all, they must be provoked by frequent and pretty strong clysters, that so they may be excited thereby : after which, let her walk about the chamber, that so the weight of the child may help them forward. But if she should have convulsions, she must then be helped by a speedy delivery, the operation whereof I shall relate in this section of unnatural labours. If she be costive, let her use clysters, which may also help to dispel the cholic, at those times very injurious, because attended with useless pains, because such bear not downward, and so help not forward the birth. If she finds an obstruction or stoppage in the urine, by reason the womb bears too much on the bladder, let her lift up her belly a little with her hand, and try if by that she receives any benefit ; if she finds she does not, it will be necessary to introduce a catheter into her bladder, and thereby draw forth her urine. If the difficulty be from the ill posture of a woman, let her be placed otherwise, in a posture more suitable and convenient for her. Also, if it proceed from the indispositions of the womb, as from its oblique situation, &c. it must be remedied as well as can be, by the placing of her body accordingly : or if it be by a vicious conformation, having the neck too hard, too callous, and too strait, it must be anointed with oils and ointments, as before directed. If the membranes be so strong, as that the waters don't break due time, they may be broken with the fingers, the midwife be first well assured, that the child is

come very forward into the passage, and ready to follow presently after, or else by the breaking of the waters too soon, the child may be in danger of remaining dry a long time, to supply which defect, you may moisten the parts with fomentations, decoctions, and emollient oils; which yet is not half so well, as when nature does the work in her own time, with the ordinary slime and waters, which do best when they come in their own proper time and place. But these membranes do sometimes press forth with the waters. 3 or 4 fingers breadth out of the body before the child, resembling a bladder full of water; but there is then no great danger to break them, if they be not already broken; for when the case is so, the child is always in a readiness to follow, being in the passage: but let the midwife be very careful not to pull it with her hand, lest the after-burthen be thereby loosened before its time, for it adheres thereto very strongly. If the navel-string happens to come first, it must presently be put up again, and kept up too, if possible, or otherwise the woman must immediately be delivered. But if the after-burthen should come first, it must not be put up again by no means, for the infant having no further occasion for it, it would be but an obstacle if it were put up: in this case it must be cut off, having tied the navel string, and afterwards drawn forth the child with all the speed that may be, lest it be suffocated.

Sect. 5. *Of Women labouring with a dead Child.*

WHEN the difficulty of labour arises from a dead child, it is a cause of great danger to the mother, and great care ought to be taken therein; but before any thing be done, the midwife

78 THE EXPERIENCED MIDWIFE.

ought to be well assured the child is dead indeed, which may be known by these signs:

1. The breasts suddenly slacks, or falls flat, or bags down.

2. A great coldness possesses the belly of the mother, especially about the navel.

3. Her urine is thick, with a filthy sinking settling at the bottom.

4. No motion of the child can be perceived; for the trial whereof, let the midwife wet her hand in warm water, and lay it upon her belly; for that if it be alive will make it stir.

5. She is very subject to dream of dead men, and be affrighted therewith.

6. She has extravagant longings to eat such things as are against nature.

7. Her breath stinks, tho' not used so to do.

8. When she turns herself in her bed, or rises up, the child sways that way like a lump of lead.

But these things carefully observed, the midwife may make a judgement whether the child be alive or dead; especially if the child-bearing woman takes the following prescription:

Take half a pint of white-wine and burn it, and add thereto half an ounce of cinnamon, but no other spice whatsoever; and when she has drank it, if her travelling pains come upon her, the child is certainly dead; but if not, the child may possibly be either weak or sick, but not dead; and this which will bring her pains upon her, if it be not dead, will refresh the child, and give her ease, if it be living: for cinnamon refresheth and strengtheneth the child in the womb.

Now if upon trial; it be found the child be dead, let the mother do all she can to further her delivery, because a dead child can be no ways helpful there-

iii. It will be necessary therefore that she take some comfortable things to prevent her fainting by reason of those putrid vapours ascending from the dead child. And in order to her delivery, let her take the following herbs boiled in white wine (or at least as many of them as you can get) viz. dittany, bettony, penny-royal, sage, featherfew, centony, ivy leaves and berries. Let her also take sweet basil, in powder, half a drachm at a time, in white wine. Let her privities be also anointed with the juice of garden tansy. Or, if you take tansy in the summer, when it may be most plentifully had, and before it run up to the flower, and having bruised it well, boil it in oil till the juice of it be consumed. If you set it in the sun, after you have mixed it with oil, before you boil it, and there let it remain a month together, it will be more effectual. This an industrious midwife, who would be prepared against all events, ought to have always by her. As to the manner of her delivery, the same method must be used, as are mentioned in the section of unnatural labour. And here I cannot but commend again the stone *ætitis*, held near the privities, whose magnetic virtue renders it exceeding necessary on this occasion, for it draws the child any way, with the same facility, as the loadstone draws iron.

Let the midwife also make a strong decoction of hyssop with water, and let the woman drink it very hot, and it will in a little time bring away the dead child.

If as soon as she is delivered of the dead child, you are in doubt that part of the after-birth be left behind in her body, (for in such cases as these, many times it is rotten, and comes away by piece-meal)

86 THE EXPERIENCED MIDWIFE.

let her continue drinking the same decoction till her body is cleansed.

A decoction made of the herb mustel-wort used as you did the decoction of hyssop, works the same effects. Let the midwife also take roots of polipodium; and stamp them very well; warm them a little, and bind them on the sides of her feet, and it will soon bring away the child either alive or dead.

The following medicines likewise are such, as stir up the expulsive faculty: but in this case they must be made stronger, because the motion of the child ceaseth.

Take savin, round birthwort, troches of myrrh, castor each a drachm, cinnamon half an ounce, saffron, a scruple, give a drachm with savin-water.

Or, take borax, savin, dittany, each an ounce, myrrh, asaram-roots, cinnamon, saffron, each half a drachm, make a powder, give a drachm.

But she may purge first, and put her in an emollient bath, anointing her round about the womb, with oil of lillies, sweet almonds, chamomile, hen and goose grease. Also foment to get out the child, with a decoction of mercury, orris, wild cucumbers, seachus, broom flowers. Then anoint the privities and loins with ointment of sow-bread. Or,

Take coliquintida, argaric, birthwort, each a drachm; make a powder, add ammoniacum dissolved in wine, ox-gall, each 2 drachms; with oil of kier make an ointment. Or, this pessary.

Take birthwort, orris, black hellebore, coloquintida, myrrh, each a drachm powdered, ammoniacum dissolved in wine, ox-gall each 2 drachms. Or, make a fume with asses hoofs burnt, or galbanum, or castor, and let it be taken in with a funnel.

To

To take away pains and strengthen the pains, fortify with the decoction of mugwort, mallows, rosemary, wormwood, myrtle, St. John's-wort, each half an ounce, spermaceti 2 drachms, deer's suet an ounce, with wax make an ointment. Or,

Take wax 4 ounces, spermaceti an ounce; melt them, dip them therein, and lay it all over her belly.

If none of these things will do, the last remedy is to use surgery, and then the midwife ought to send for an expert and able man-midwife, to deliver her by manual operation: of which I shall treat more at large in the next chapter,

CHAP. VI.

Of unnatural Labour, and what is to be done therein.

IN shewing the duty of a midwife, when the child-bearing woman's labour is unnatural, it will be requisite to shew, in the first place what I mean by unnatural labour; for to bring forth children in pain and sorrow is natural, and common to all. Therefore that which I call unnatural, is when the child comes to the birth in a contrary posture to that which nature ordained, and in which the generality of children come into the world. Now as truth is but one, but error dilates itself into infinite variety; so it is in this case: there is but one proper, right and natural way or posture, in which children come to the birth; but there are as many wrong and unnatural ways of birth, as there are different postures of children when they come to be born. The right and natural birth, is when the child comes with its head first, and yet even this is too short a definition of a natural birth; for if any part of the head but the crown comes first, so that the body follow not in a strait line, 'tis a wrong

82 THE EXPERIENCED MIDWIFE.

and difficult birth, even tho' the head come first : therefore, if the child come with its feet, or with the side a-cross, it is quite contrary to nature, or to speak more plainly, that which I call unnatural ; now there are four general ways that a child may come wrong : the first is, when any of the fore-parts of the body first present themselves. Secondly, when by an unhappy transposition, any of the hinder parts first present themselves. Thirdly, when either of the sides ; or, Fourthly, the feet, present themselves first : to these four, all the particular and different wrong postures that a child can present itself in, for the birth may be reduced ; and therefore I shall confine myself herein, to treat only of these four more general wrong postures.

Sect. 2. *How to deliver a Woman of a dead Child, by Manual Operation.*

THE last section of the last chapter was about the delivering of a woman of a dead child, where in several things were directed to be applied in order to facilitate the delivery ; but when all these fail, a manual operation is absolutely necessary ; in order to which, let the operator acquaint the woman with the absolute necessity there is of such an operation ; and that as the child has already lost its life, there is no other way left for the saving of her's : let him also tell her, for her encouragement, that he doubts not but with the divine blessing, to deliver her safely and that the pain arising thereby, will not be so great as she fears. And then let him endeavour to stir up the woman's pains, by giving her some sharp clyster, to excite her throws to bear down and bring forth the child : and if this prevail not, let him proceed with his manual operation.

First,

THE EXPERIENCED MIDWIFE. 83

First, therefore let her be placed cross the bed that he may operate the easier, and let her lie on her back, with her hips a little higher than her head, or at least the body equally placed, when it is necessary to put back or turn the infant, to give it a better posture; being thus situated, she must fold her legs so as her heels be towards her buttocks and her thighs spread, and held so by a couple of strong persons; there must be others also to support her under her arms, that the body may not slide down when the child is drawn forth, for which sometimes a great strength is required; let the sheets and blankets cover her thighs for decency's sake, and with respect to the assistance, and also to prevent her catching cold: the operator herein governing himself as well with respect to his own convenience, and the facility and surety of the operation, as to the other things. Then let him anoint the entrance of the womb with oil or fresh butter; if it be necessary, that so he may with more ease introduce his hand, which must also be anointed; and having by the signs before mentioned received satisfaction that it is a dead child, he must do his endeavour to fetch it away as soon as possible he can, and if the child offers the head first, he must gently put it back until he hath liberty to introduce his hand quite into the womb; then sliding it along under the belly to find the feet, let him draw it forth by them, being very careful to keep the head from being locked in the passage, and that it be not separated from the body; which may be effected the more easily, because the child being very rotten and putrified, the operator is not so mindful to keep the breast and face downwards, as he is in living births. But if notwithstanding all these precautions, by reason of the child's putrefaction,

84 THE EXPERIENCED MIDWIFE.

saction, the head should be separated, and left behind in the womb, it must be drawn forth according to the directions which shall be given in Sect. 3. of this chapter, for that purpose. — But when the head coming first, is so far advanced that it cannot be well put back, 'tis better to draw it forth so, than torment the woman too much by putting it back to turn it, and bring it by the feet; but the head being a part round and slippery, it may so happen that the operator cannot take hold of it with his fingers by reason of its moisture, nor put them up to the side of it, because the passage is filled with its bigness, he must take a proper instrument, and put it up as far as he can without violence, between the womb and the child's head, observing to keep the point of it towards the head, (for the child being dead before, there can be no danger in the operation) and let him fasten it there, giving it good hold upon one of the bones of the skull, that it may not slide; and after it is well fixed in the head, he may therewith draw it forth, keeping the ends of the fingers of his left hand flat upon the opposite side, the better to help to disengage it, and by wagging it by little and little, to conduct it directly out of the passage, until the head be quite born, and then taking hold of it with the hands only, the shoulders may be drawn into the passage, and so, sliding the fingers of both hands under the arm-pits, the child may be quite delivered; and then the after-burthen fetched, to finish the operation, being careful not to pluck the navel-string too hard, lest it break, as often happens when it is corrupted.

If the dead child comes with the arm up to the shoulders so extremely swelled that the woman must suffer too great a violence to have it put back, it is then

then (being first well assured the child is dead) best to take it off at the shoulder joints, by twisting 3 or 4 times about; which is very easily done; by reason of the softness and tenderness of the body: after the arm is so separated, and no longer possessing the passage, the operator will have more room to put up his hand into the womb, to fetch the child by the feet, and bring it away.

But altho' the operator be sure the child is dead in the womb, yet he must not therefore presently use instruments, because they are never to be used, but when hands are not sufficient; and there is no other remedy to prevent the woman's danger, or to bring forth the child any other way; and the judicious operator will chuse that way which is the least hazardous and most safe.

Sect. 2. *How a Woman must be delivered, when the Child's Feet come first.*

THERE is nothing more obvious to those whose business it is to assist labouring women, than that the several unnatural postures in which children present themselves at their births, are the occasion of most of the bad labours and ill accidents that happen unto women in such a condition.

And since midwives are very often obliged, because of the unnatural situations, to draw the children forth by the feet, I conceive it to be most proper to shew first, how a child must be brought forth that presents itself in that posture, because it will be a guide to several of the rest.

I know indeed that in this case, 'tis the advice of several authors to change the figure, and place the head so, that it may present to the birth; and this council I should be very inclinable to follow, could they but also shew how it must be done: but it will appear

86 THE EXPERIENCED MIDWIFE.

appear very difficult, if not impossible to be performed, if we would avoid the dangers that by such violent agitations both the mother and child must be put into, and therefore my opinion is, That it is better to draw it forth by the feet, when it presents itself in that posture, than to venture a worse accident by turning it.

As soon therefore as the waters are broke, and it is known that the child comes thus, and that the womb is open enough to admit the midwife's or operator's hand into it, or else by anointing the passage with oil or hog's grease, to endeavour to dilate it by degrees, using her fingers to this purpose, spreading them one from the other, after they are together entered, and continuing to do so till it be sufficiently dilated, then taking care that her nails are well pared, and no rings on her fingers, and her hands well anointed with oil or fresh butter, and the woman placed in the manner directed in the former section, let her gently introduce her hand into the entry of the womb, where, finding the child's feet, let her draw it forth in the manner I shall presently direct; only let her first see whether it presents one foot, or both, and if but one foot, she ought to consider whether it be the right foot or the left, and also in what fashion it comes; for by that means she will sooner come to know where to find the other, which as soon as she knows, and finds, let her gently draw it forth with the other; but of this she must be especially careful, viz. that this second be not the foot of another child; for if so, it may be of the most fatal consequence, for she may sooner split both mother and child than draw them forth; but this may be easily prevented if she does but slide her hand up the first leg and thigh, to the twist, and there find both thighs joined together, and

and descending from one and the same body. And this is also the best means to find the other foot, when it comes but with one.

As soon as the midwife hath found both the child's feet, she may draw them forth, and holding them together, may bring them by little and little in this manner, taking afterwards hold of the legs and thighs as soon as she can come at them, drawing them so till the hips be come forth. Whilst this is doing, let her observe to wrap the parts in a single cloth, that so her hands being already greasy, slide not on the infant's body, which is very slippery, because of the viscous humours which are all over it, and prevent one's taking good hold of it, which being done, she may take hold under the hips, so to draw it forth to the beginning of the breast, and then let her on both sides with her hand bring down the arms along the child's body, which she may then easily find; and then let her take care that the belly and face of the child be downwards, for if it should be upwards, there would be some danger of its being stop'd by the chin, over the shere-bone; and therefore, if it be not so, she must turn it to that posture, which may be easily done, if she take hold on the body when the breast and arms are forth in the manner we have said, and draws it with turning it in proportion on that side which it most inclines to, till it be turned with the face downwards, and so having brought it to the shoulders, let her lose no time, desiring the woman at the same time to bear down, that so at drawing, the head at that instant may take its place, and not be stop't in the passage. Some children there are whose heads are so big, that when the whole body is born, yet that stop's in the passage, tho' the midwife takes all the care possible to prevent it. And when this happens, she must not endeavour only to draw forth the child by the shoulders, lest she sometimes separate the body from the head, as I have known it done by the midwife, but she must discharge it by little and little from the bones in the passage with the fingers of each hand, sliding them on each side opposite the one to the other, sometimes above, and sometimes

times under, until the work be ended, endeavouring to dispatch it as soon as possible, lest the child be suffocated, as it will unavoidably be, if it should remain long in that posture; and thus being well and carefully effected, she may soon after fetch away the after-birth, as I have before directed.

Sect. 3. How to bring away the Head of the Child, when separated from the Body, and left behind in the Womb.

THOUGH the utmost care be taken in bringing away the child by the feet, yet if the child happen to be dead, it is sometimes so putrified and corrupted, that with the least pull the body separates from the head, and remains alone in the womb, and cannot be brought away but with a manual operation and difficulty, so it being extremely slippery, by reason of the place where it is, and from the roundness of its figure, on which no hold can well be taken; and so many times is the difficulty in this case, that sometimes two or three able practitioners in the art of midwifery, have one after the other left the operation unfinished, as not able to effect it, after the utmost efforts of their industry, skill, and strength; so that the woman, not being able to be delivered, perished. To prevent such fatal accidents for time to come, let the following operation be observed.

When the infant's head separated from its body, is left alone behind, whether thro' putrefaction, or otherwise, let the operator immediately, without any delay, whilst the womb is yet open, direct up his right hand to the mouth of the head, (for no other hold can there be had) and having found it, let him put one or two of his fingers into it, and his thumb under the chin, and then let him draw it by little and little, holding it so by the jaw; but if that fails, as sometimes it will, when putrified, then let him pull forth his right hand and slide up his left, with which he must support the head, and with the right let him take a narrow instrument, called a *crochet*, but let it be strong, and with a single branch, which he must guide along the inside of his hand, with the point of it towards it, for fear of hurting the womb; and having thus introduced it, let him turn it towards the head, for

to strike either into an eye-hole, or the hole of an ear, or behind the head, or else between the stature, as he finds it most convenient and easy; and then draw forth the head so fastened, with the said instrument, still helping to conduct it with his left hand; but when he hath brought it near the passage, being strongly fastened to the instrument, let him remember to draw forth his hand, that the passage, not being filled with it, may be the larger and easier, keeping still a finger or two on the side of the head, the better to disengage it.

There is also another way to this, with more ease and less hardship than the former; which is this, Let the operator take a soft fillet or linen slip, of about 4 fingers breadth, and the length of 3-quarters of an ell, or thereabouts; taking the 2 ends with the left hand, and the middle with the right; and let him so put it up with his right, as that it may be beyond the head, to embrace it as a sling doth a stone; and afterwards, drawn forth, the fillet by the two ends together, it will easily be drawn forth, the fillet not hindering the least passage, because it takes up little or no place.

When the head is thus fetched out of the womb care must be taken that not the least part of it be left behind, and likewise to cleanse the woman well of her after-burthens, if yet remaining. Some have questioned whether the child's head yet remaining in the womb, and the after-birth too, which ought to be brought away first? The answer to which question may be by way of distinction; that is to say, if the burthen be wholly separated from the sides of the womb, that ought to be first brought away, because it may also hinder the taking hold of the head; but if it still adheres to the womb, it must not be meddled with till the head be brought away; for if one should then go about to separate it from the womb, it might then cause a flooding, which would be augmented by the violence of the operation; the vessels to which it is joined, remaining for the most part open, as long as the womb is distended, which the head causeth while it is retained in it, and cannot close till this strange body be avoided, and then it doth by contraction and compressing

compressing itself together, as has been more fully before explained. Besides, the after-birth remaining thus cleaving to the womb, during the operation, prevents it from receiving easily either bruise or hurt.

Sect. 4. How to deliver a Woman when the side of the Child's Head is presented to the birth.

THOUGH some may think it a natural labour when the child's head may come first, but yet if the child's head presents not the right way, even that is an unnatural labour, and therefore though the head comes first, yet if it be the side of the head, instead of the crown, it is very dangerous both to the mother and child, for the child may sooner break its neck than be born in that manner; and by how much the mother's pains continue to bear the child, which is impossible unless the head be rightly placed, the more the passages are stoppt, therefore as soon as the position of the child is known, the woman must be laid with all speed, lest the child should advance further in this vicious posture, and thereby render it more difficult to thrust it back, which must be done in order to place the head in the passage right as it ought to be.

To this purpose therefore, place the woman so that her hips may be a little higher than her head and shoulders, causing her to lean a little upon the opposite side to the child's ill posture; then let the operator slide up his hand, well anointed with oil, by the side of the child's head, to bring it right gently with his fingers between the head and the womb; but if the head be so engaged that it cannot be done that way, he must then put his hand up to the shoulders, that so, by thrusting them back a little into the womb, sometimes on the one side, and sometimes on the other, he may, by little and little, give it a natural position. I confess it would be better if the operator could put back the child by its shoulders with both his hands; but the head takes up so much room, that he will find much ado to put up one, with which he must perform his operation with the help of the fingers ends of the other hand, put up as far as necessary, after which let him excite and put forwards the child's birth, as when the labour is natural.

Some

Some children present their face first, having their heads turned back, in which posture it is, extremely difficult that a child should be born; and if it continue so long, the face will be swelled, and withal black and blue, that it will at first sight seem monstrous, which is occasioned as well by the compression of it in that place as by the midwife's fingers handling it too rudely, in order to place it in a better posture. But this blackness will wear away in three or four days time, anointing it often with oil of sweet almonds. To deliver this birth, the same operation must be used, as in the former, when a child comes with the side of the head; only let the midwife or operator work very gently, to avoid as much as possible the bruising of the face.

Sect. 5. How to deliver a Woman when the Child presents one or both hands, together with the head.

SOOMETIMES the infant will present some other part together with its head, which if it does, it is usually one or both its hands; and this hinders the birth, because the hands take up part of the passage which is little enough for the head alone; besides that, when this happens, they generally cause the head to lean on one side; and therefore this position may be very well stiled unnatural. When the child presents thus, the first thing to be done, after it is perceived, must be to prevent it from coming down more, or engaging further in the passage; and therefore the operator having placed the woman on the bed, with her head a little lower than her hips, must put and guide back the infant's hand with his own as much as may be, or both of them, if they both come down, to give way to the child's head, and this being done, if the head be on one side, it must be brought into its natural posture, in the middle of the passage, that it may come in a strait line; and then proceed as directed in the foregoing section.

Sect. 6. How a Woman is to be delivered, when the Hands and Feet of the Infant come together.

THERE is none but will readily grant, that when the hands and feet of an infant present together, the labour must be unnatural, because it is impossible a child

child should be born in that manner. In this therefore when the midwife guides her hand towards the orifice of the womb, she will perceive only many fingers close together; and if it be not sufficiently dilated, it will be a good while before the hands and feet will be exactly distinguished; for they are sometimes so shut and pressed together, that they seem to be all of one and the same shape, but where the womb is open enough to introduce the hand into it, she will easily know which are the hands and which are the feet; and having well taken notice thereof, let her slide her hand, and presently direct it towards the infant's breast, which she will find very near, and then let her very gently thrust back the body towards the bottom of the womb, leaving the feet in the same place where she found them; and then having placed the woman in a convenient posture, that is, to lay her hips a little raised above her breast and head, (which situation ought always to be observed, when the child is to be put back into the womb) let the midwife afterwards take hold of the child by the feet, and draw it forth, as is directed in the second section.

This labour, tho' somewhat troublesome, yet is much better than when the child presents only its hands; for the child must be quite turned about, before it can be drawn forth; but in this, they are ready, presenting themselves, and in this there is not much to do, but to lift and thrust back a little the upper part of the body, which is almost done of itself, by drawing it alone by the feet.

I confess there are many authors that have written of labours, who would have all wrong births reduced to a natural figure; which is to turn it, that it may come with the head first: but those that have thus written are such as never stood the practical part; for if they had had the least experience herein, they would know that it is very often impossible, at least if it were to be done, that violence must necessarily be used in doing it, that would very probably be the death of mother and child in the operation. I would therefore lay down, as a general rule, that whensoever an infant presents itself wrong to the

the birth in what posture soever from the shoulders to the feet it is the best way, and soonest done; to draw it out by the feet: and that it is better searching for them if they do not present themselves, rather than try to put it in the natural posture: and place the head foremost, for the great endeavours necessary to be used in turning the infant in the womb, do so much weaken both mother and child, that there remains not afterwards strength enough to commit the operation to the work of nature, for usually the woman hath no more throws nor pains fit for labour, after she has been so wrought upon; for which reason it would be very difficult and tedious at best, and the child, by such an operation, made very weak, and would be in extreme danger of perishing before it could be born. It is therefore much better, in these cases to bring it away immediately by the feet; searching for them, as I have already directed, when they do not present themselves; by which the mother will be prevented of a tedious labour, and the child be often brought alive into the world, who otherwise would hardly escape death. And thus much shall suffice to be said of unnatural labours; for, by the rule already given, a skilful artist will know how to proceed in any other posture in which the child shall present itself.

Sect. 7. How a woman shall be delivered that has Twins, which present themselves in different posturas.

WE have already spoken something of the birth of twins in the chapter of natural labour; for it is not an unnatural labour, barely to have twins, provided they come in a right position to the birth. But when they shall present themselves in divers postures, they come properly under the denomination of unnatural labours: and if when one child presents itself in a wrong figure, it makes the labour dangerous and unnatural, it must needs make it much more so, when there are several, and render it not only more painful to the mother and children, but the operator also; for they are then so constrained and pressed, that they often trouble each other, and hinder both their births; besides which the womb is then so filled with them, that the operator can hardly

hardly introduce his hand, without much violence, which he must do, if they are to be turned, or thrust back, to give them a better position.

When a woman is pregnant with two children, they rarely present to the birth together, the one being generally more forward than the other, and that is the reason that but one is felt; and that many times the midwife knows not that there are twins till the first is born; and that she is going to fetch away the after-birth. In the fifth chapter, wherein I treated of natural labour, I shewed how a woman should be delivered of twins, presenting themselves both right; and therefore, before I close this chapter of unnatural labour, it only remains, that I shew what ought to be done, when they either both come wrong; or one of them only, as for the most part it happens; the first generally coming right, and the second with the feet forward, or in some worse posture. In such a case, the birth of the first must be hastened as much as possible, to make way for the second, which is best brought away by the feet, without endeavouring to place it right, even tho' it was somewhat inclining towards it, because it has been already tried and weakened by the birth of the first, as well as its mother, that there would be greater danger of its death than likelihood of its coming out of the womb that way.

But if, when the first is born naturally, the second should likewise offer its head to the birth, it would be then best leaving nature to finish what she has so well begun; and if nature should be too slow in her work, some of those things mentioned in the fourth chapter to accelerate the birth, may be properly enough applied: and if, after that, the second birth should be yet delayed, let a manual operation be deferred no longer; but the woman being properly placed, as has been before directed, let the operator direct his hand gently into the womb to find the feet, and so draw forth the second child, which will be the more easily effected, because there is way made sufficient by the birth of the first; and if the waters of this second child be not broke, as it often happens, yet intending to bring it away by the feet, he

need

need not scruple to break the membranes with his finger. For tho' when the birth of a child is left to the operation of nature, it is necessary that the waters should break of themselves, yet when the child is brought out of the womb by art, there is no danger in breaking them; nay, on the contrary, it becomes necessary, for without the waters are broke, it would be almost impossible to turn the child.

But herein principally lies the care of the operator, that he is not deceived, when either the hands or feet of both children, offer themselves together to the birth; in this case he ought to consider the operation, as whether they be not joined together, or any other ways monstrous; and which part belongs to one child, and which to the other; that so they may be fetched one after the other, and not both together, as might be, if it were not only considered, taking the right of the one, and the left foot of the other, and so drawing them together, as if they both belonged to one body, because there is a left and a right; by which means it would be impossible ever to deliver them. But a skilful operator will easily prevent this, if having found two or three feet of several children, presenting together in the passage, and taking aside two of the forwardest, a right and a left, and sliding his hand along the legs and thighs up to the twist, if forwards, or to the buttocks, if backwards, he finds they both belong to one body; of which being thus assured, he may begin to draw forth the nearest, without regarding which is strongest or weakest, bigger or less, living or dead, having first put a little aside that part of the other child, which offers to have the more way, and so dispatch the first, whenever it is, as soon as may be, observing the same rules, as if there were but one, that is, keeping the breast and face downwards, with every circumstance directed in that section, where the child comes with its feet first; and not fetch the burthen till the second child is born. And therefore, when the operator hath drawn forth one child, he must separate it from the burthen, having tied and cut the navel string, and then fetch the other by the feet, in the same manner;

ner; and afterwards bring away the after-burthen with the two strings, as hath been before shewed: If the children present any other part than the feet, the operator may follow the same method as is directed in the foregoing section, where the several unnatural positions are fully treated of.

C H A P. VII.

Directions for Child-bearing Women in their Lying in.

IN the fourth, fifth and sixth chapters, we have treated at large of women's labour, and how they may be safely delivered both in natural and unnatural labours; having therefore thus brought a good woman to bed, I will in this chapter direct how she ought to be ordered in her lying in.

Sect. 2. Shewing how a Woman newly delivered ought to be ordered.

AS soon as she is lain in her bed, let her be placed in it conveniently for ease and rest, which she stands in great need of, to recover herself of the great fatigue she underwent during her travail; and, that she may lie the more easily, let her head and body be a little raised, that she may breathe more freely, and cleanse the better, especially of that blood which then comes away, that so it may not clod, which being retained, causeth very great pain.

Having thus placed her in her bed, let her drink a draught of burnt white-wine, when you have first mixed therein a dram of *Spermaceiti*. The herb *Vervain* is also a most singular herb for a woman in this condition, boiling it in what she either heats or drinks, fortifying the womb so exceedingly, that it will do it more good in two days, than any thing else you can give her will do in two weeks; having no offensive taste, though very pleasant virtues. And this is no more than what she stands in need of, for her lower parts being greatly distended by the birth of the infant, it is good to endeavour the prevention of an inflammation there. Let there be also outwardly applied, all over the bottom of the Belly and privities the following anodine or cataplasin: *Take two ounces of oil of sweet almonds, and 2 or 3 new-laid eggs, yolks and whites, stirring them together in an earthen pipkin, over*

THE EXPERIENCED MIDWIFE.

97

hot embers, till it comes to the consistence of a poultice; which being spread upon a cloth; must be applied to those parts indifferently warm; having first taken away the clousters, (which were put to her presently after her delivery) and likewise such clods of blood as were there left. Let this lie on five or six hours, and then renew it again as you see cause.

Great care ought to be taken at first, that if her body be very weak, she be not kept too hot; for extremity of heat weakens nature, and dissolves the strength; and whether she be weak or strong, be sure that no cold air come near her at first; for cold air is an enemy to the spermatick parts; and if it get into the womb, it increases the after pains, causes swellings in the womb; and hurts the nerves. As to her diet, let it be hot, and let her eat but a little at a time. Let her avoid the light for the first three days, and longer, if she be weak; for her labour weakens her eyes exceeding, by a harmony between the womb and them. Let her also avoid great noises, sadness, and trouble of mind.

If the womb be foul, which may be easily perceived by the impurity of the blood, (which will then either come away in clots, or stinking, or if you suspect any of the after-burden to be left behind; which may sometimes happen) make her a drink of featherfew, mugwort, penny-royal, and mother of thyme, boiled in white wine, sweetened with sugar.

Panada, and new laid eggs; is the best meat for her at first, of which she may eat often, but not too much at a time. And let her use cinnamon in all her meats and drinks; for it is a great strengthener to the womb.

Let her stir as little may as be till after the fifth, sixth, or seventh days of her delivery, if she be weak. And let her talk as little as may be, for that weakens her.

If she goes not well to stool, give a clyster made only with the decoction of mallows, and a little brown sugar.

When she hath lain in a week, or something more, let her use such things as close the womb, of which knot-grass and comfry are very good, and to them you may add a little polipodium, for it will do her good; both leaves and roots being bruised.

Sect.

98 THE EXPERIENCED MIDWIFE.

Sect. 2. *How to remedy those accidents which a Lying-in Woman is subject to.*

I. **T**HE first common and usual accident that troubles women in their lying-in, is after-pains, about the cause whereof physicians make no small stir, some affirming one thing to be the cause, and some another : but it is most certain, that they proceed from cold and wind contained in the bowels, with which they are easily filled after labour, because there they have more room to dilate, than when the child was in the womb, by which they were compressed, and also because nourishment and matter contained as well in them as in the stomach have been so confusedly agitated from side to side during the pains of labour, by the frequent throws which always must compress the belly, that they could not be well digested, whence this wind is afterwards generated, and by consequence the gripes which the woman feels running into her belly from side to side, according as the wind moves more or less, and sometimes likewise from the womb because of the compression and commotion, which the bowels make ; these being generally the cause, let us now apply a suitable remedy.

1. Boil an egg soft, and pour out the yolk of it, with which mix a spoonful of cinnamon water, and let her drink it ; and if you mix in it, 2 grains of amber-grease, it will be the better ; and yet ver-vain taken in any thing she drinks, will be as effectual as the other.

2. Give the lying-in woman, immediately after delivery, oil of sweet almonds, and syrup of maiden hair, mixed together. Some prefer oil of wal-nuts, provided it be made of nuts that are very good, but tastes worse than the other at best. This will

THE EXPERIENCED MIDWIFE. 99

will lenify the inside of the intestines by its unctuousness, and by that means bring away that which is contained in them more easily.

3. Take and boil onions very well in water, then stamp them with oil, and cinnamon and seed in powder, spread them upon a cloth, and apply them to the region of the womb.

4. Let her be careful to keep her belly very hot, and not to drink too cold; and if they prove very violent, hot cloths from time to time must be laid to her belly, or a pancake fried in walnut oil, may be applied to it without swathing her belly too strait. And for the better evacuating the wind out of the intestines, give her a clyster, which may be repeated as often as necessity requires.

5. Take bay-berries, beat them to powder, put the powder upon a chafing-dish of coals, and let her receive the smoak of them up her privities.

6. Take tar and barrows grease, of each an equal quantity, boil them together, and whilst it is boiling, add a little pigeons dung to it. Spread some of this upon a linen cloth, and apply it to the reins of the back of her that is troubled with after-pains, and it will give her speedy ease.

Lastly, Let her take half a drachm of bay-berries, beaten into a powder, in a draught of muskadel, or tent.

II. Another accident to which women in child-bed are subject, is the hemorrhoids, or piles, occasioned through their great straining, in bringing the child into the world. To cure this,

1. Let her be let blood in the vein saphæna.

2. Let her use polypodium in her meat and drink, bruised and boiled.

3. Take an onion, and having made a hole in the middle of it, fill it full of oil, roast it, and having

100 THE EXPERIENCED MIDWIFE,

having bruised it all together, apply it to the fundament.

4. Take a dozen of snails without shells, if you can get them, or else so many shell snails, and pull them out, and having bruised them with a little oil, apply them warm to the fundament.

5. Take as many wood-lice as you can get, and bruise them, and having mixed them with a little oil, apply them warm, as before.

6. If she go well to stool let her take an ounce of cassia fistula, drawn at night going to bed, she need no change of diet after.

III. Retention of the menstrues is another accident happening to women in child-bed; and which is of so dangerous a consequence, that if not timely remedied it proves mortal. Where this happens:

1. Let the woman take such medicines as strongly provoke the terms, and such are dittany, bettony, penny-royal, savory, feaverfew, centory, juniper berries, piony roots.

2. Let her take 2 or 3 spoonfuls of briony water each morning.

3. Centiam roots beaten into a powder, and a drachm of them taken every morning in wine, is an extraordinary remedy.

4. The roots of birthwort, either long or round, so used and taken as the former, is very good.

5. Take 12 piony seeds, and beat them into very fine powder, and let her drink, them in a draught of hot cardus posset-drink, let her sweat after. And if this last medicine don't bring them down the first time she takes it, let her take as much more 3 hours after, and it seldom fails.

IV. Over-flowing of the menstrues is another accident incident to child-bed women.

1. Take

THE EXPERIENCED MIDWIFE. 101

1. Take shepherds purse, either boiled in any convenient liquor, or dried and beaten into powder, and it will be an admirable remedy to stop them, this being especially appropriated to the pri-
vities.

2. The flowers and leaves of brambles, or either of them, being dried, and beaten into powder, and a drachm of them taken every morning in a spoon-
ful of red wine, or in a decoction of the leaves of the same, (which perhaps is much better) is an ad-
mirable remedy for the immoderate flowing of the
terms in women,

V. Excoriations, bruises, and rents of the low-
er part of the womb, are often occasioned by the
violent distension and separation of the four carun-
cles in a woman's labour. For the healing whereof,

As soon as the woman is laid, if there be only
simple contusions and excoriations, let the anodine
cataplasim, formerly directed, be applied to the
lower parts to ease the pain, made of the yolks and
whites of new-laid eggs, and oil of roses boiled a
little over warm embers, continually stirring it till
it be equally mixed, and then spread upon fine
cloth, it must be applied very warm, to the bear-
ing place, for five or six hours, and when it is taken
away, lay some fine rags, dipped in oil of St. John's-
wort, on each side of the bearing-place, or let the
part excoriated be anointed with oil of St. John's-
wort, twice or thrice a day; also foment the parts
with barley water and honey of roses, to cleanse
them from the excrements which pass. When the
woman makes water, let them be defended with
fine rags, and thereby hinder the urine from causing
smart and pain.

VI. The curdling and clotting of the milk, is
another accident that often happens to women in
child.

Take

102 THE EXPERIENCED MIDWIFE.

child-bed; for in the beginning of child-bed, the woman's milk is not purified, because of the great commotions her body suffered during her labour, which affected all the parts, and it is then mixed with many other humours. Now this clotting of the milk does for the most part proceed from the breasts not being fully drawn; and that either because she hath too much milk, and that the infant is too small and weak to suck all; or because she doth not desire to be a nurse, for the milk in those cases remaining in the breast after concoction, without being drawn, loseth the sweetness and the balsamic quality it had, and by reason of the heat it acquires, and the too long stay it makes there, it sours, curdles, and clots, in like manner as we see runnet put into ordinary milk turns it into curds. This curdling of the milk may be also caused by having taken a great cold, and not keeping the breast well covered.

But from what causes soever this curdling of the milk proceeds, the most certain remedy is, speedily to draw the breasts, until they are emitted and dried. But in regard of the infant, by reason of its weakness, cannot draw strong enough, the woman being hard marked when her milk is curdled, it will be most proper to get another woman to draw her breasts until the milk comes freely, and then she may give her child suck. And that she may not afterwards be troubled with a surplussage of milk, she must eat such diet as gives but little nourishment, and that she keeps her body open.

But if the case be such, that the woman neither can nor will be a nurse, 'tis then necessary to apply other remedies for the curing of this distemper. For then it will be the best not to draw her breasts, for that will be the way to bring more milk into them;

them; for which purpose it will be necessary to empty the body by bleeding in the arm; besides which, let the humours be drawn down by strong clysters, and bleeding in the foot, nor will it be amiss to purge gently; and to digest, dissolve and dissipate the curded milk, apply the cataplasim of pure honey, or that of the four brains dissolved in a decoction of sage, milk, smallage and fennel, mixing with it oil of chamomile: with which oil let the breasts be also well anointed. This following liniment is also good to scatter and dissipate the milk.

A Liniment to scatter and dissipate the Milk.

That the milk flowing back to the breasts, may without offence be dissipated, you must use this ointment. Take pure wax, 2 ounces, of linseed oil, half a pound: when the wax is melted, let the liniment be made, wherein linen cloths must be dipped, and according to their largeness be lain upon the breast, and when it shall be discussed, and pains no more, let other linen cloths be dipped in the distilled water of acorns, and put upon them.

Note, That the cloths dipped in the distilled water of acorns, must be used only by those that cannot nurse their own children: but if a swelling in the breasts of them which gave suck do arise from abundance of milk, and threaten an inflammation, let them use the former ointment, but abstain from using the distilled water of acorns.

C H A P. VIII.

Directions for Nurses in ordering New-born Children.

HAVING in the former chapter shewn how the lying-in woman should be ordered, it is now high time to take care of the infant; to whom, h

first service that should be performed for it, is the cutting of the child's naval-string, of which I have spoken at large before in page 59.

Sect. 1. *What to be done to the New-born Infant, after Cutting the Naval-string.*

WHEN the child's naval-string hath been cut according to the rules before prescribed, let the midwife presently cleanse it from the excrements and filth it brings into the world with it, of which some are within the body, as the urine in the bladder, and the excrement found in the guts; and others without, which are thick and whitish, and clammy, proceeding from the sliminess of the waters; there are children sometimes so covered all over with this, that one would say they were rubbed over with soft cheese, and some women are of so easy a belief, that they really think it so; because they had eaten some while they were with child. From these excrements let the child be cleansed with wine and water a little warmed, washing every part of its body therewith, but chiefly the head, because of the hair, also the folds of the groins, arm-pits, and the cuds or privities; which parts must be gently cleansed with a linen rag, or a soft sponge, dipped in this luke-warm wine. If this clammy or viscous excrement stick so close that it will not be so easily washed off from those places, it may be fetched off with oil of sweet almonds, or a little fresh butter melted with wine; and afterwards well dried off; she must also make tents of fine rags, and, wetting them in this liquor therefore, unstop the ears and nostrils, but for the eyes, wipe them only with a dry soft rag, not dipping it in the wine, lest it should make them smart.

The

The child being thus washed and cleansed from its native blood and impurities, which attended it into the world, it must in the next place be searched to see whether all things be right about it, and that there be no fault or dislocation; whether its nose be strait, or its tongue be tied, or whether there be any bruise or tumour of the head, or whether the mould be not over-shotten; also whether the *scrotum* (in case it be a boy) be not blown up and swelled; and in short whether it has suffered any violence by its birth in any part of its body, and whether all the parts be well and duly shaped, that so suitable remedies may be applied, if any thing be not found right. Nor is it enough to see that all be right without, and that the outside of the body be cleansed, but she must chiefly observe whether it dischargeth the excrements retained within, and whether the passages are open, for some have been born without having them perforated; therefore let her examine whether the conduits of the urine and stool be clear; for want of which some have died, not being able to void their excrements, because timely care be not taken at first: as to the urine, all children, as well males as females, do make water as soon as they are born, if they can, especially when they feel the heat of the fire, and sometimes also the excrements, but not so soon as the urine. If the infant does not ordure in the first day, then put up into its fundament a suppository, to stir it up to be discharged, that it may not cause painful gripes, by remaining so long in its belly. A sugared almond may be proper for this purpose, anointed over with a little boiled honey, or else a small piece of Castile soap, rubbed over with fresh butter, she may also give the child to this purpose, a little syrup of roses or violets at

the mouth, mixed with some oil of sweet almonds drawn without a fire, anointing the belly also with the same oil, or a little fresh butter.

The midwife having thus washed and cleansed the child, according to the before-mentioned directions, let her begin to swaddle it in swathing cloaths, and when she dresses the head, let her put small rags behind the ears to dry up the filth, which usually engenders there, and so let her do also in the folds of the arm-pits and groins, and so swathe it, having wrapped it up warm in beds and blankets, which there is scarce any woman so foolish, but knows well enough how to do, only let me give them this caution, that she swathe not the child too strait in its blankets, especially about the breast and stomach, that it may breathe the more freely, and not be forced to vomit up the milk it sucks, because the stomach cannot be sufficiently extended to contain it; therefore let its arms and legs be wrapped in its bed, stretched and strait, and swathed to keep them so, viz. the arms along its sides, and its legs equally both together, with a little of the bed between them, that they may not be galled by rubbing each other. Then let the head be kept steady and strait, with a stay fastened on each side the blanket, and then wrap the child up in mantles and blankets to keep it warm. Let none think this of swathing the infant is needless to set down, for it is necessary it should be thus swaddled, to give its little body a strait figure, which is most decent and proper for a man, and to accustom him to keep upon his feet, which otherwise would go upon all four, as most other animals do.

C H A P. IX.

*Of the Indisposition of New-born Infants, with
suitable Remedies for each.*

IN new-born children there are so many distempers they are subject to, that daily experience shews us, there are not above half the children that are born, which live till they are three years old; which is occasioned as well because of the tenderness of their bodies, as the feebleness of their age, which hinders them from expressing the incommodities they labour under, any otherwise than by their cries. The business of this chapter therefore shall be to discover the indispositions to which they are subject, with the remedies proper for them.

*Sect 1. Of Gripes and Pains in the Bellies of Young
Children.*

THIS I mention first, as it is often the first and most common distemper which happens to little infants after their birth: many children being so troubled, are pained therewith, that it causes them to cry night and day, and at the last to die of it. The cause of it for the most part, comes from the sudden change of their nourishment, for having always received it from the umbilical vessels whilst in their mother's womb, they come on a sudden to change not only the manner of receiving it, but the nature and quality of what they receive, as soon as they are born: for instead of putrified blood only, which was conveyed to them by means of the umbilical vein, they are now obliged to be

nourished with their mother's breast milk; which they suck with their mouths, and from which are engendered many excrements. causing gripes and pains, and that not only because it is not so pure as the blood with which it was nourished in the womb, but because the stomach and intestines cannot yet make a good digestion, being unaccustomed to it. It is also caused sometimes by a rough flegm, and sometimes by the worms; for physicians affirm, that worms have been bred in children, even in their mother's belly.

The remedy therefore must be suited according to the cause; if it proceed from the too sudden changes of nourishment, the remedy must be to forbear giving the child suck for some days, lest the milk being mixed with flegm, which is then in the stomach corrupt: and at first it must suck but little until it be accustomed to digest it. If it be the excrements in the intestines, which by their long stay increaseth these pains, give them at the mouth a little oil of sweet almonds, and syrup of roses: if it be worms, lay a cloth, dipped in oil of wormwood, mixed with ox-gall, upon the belly; for a small cataplasm mixed with the powder of rue, wormwood, coliquintida, aloes, and the seeds of citron, incorporated with ox-gall and the powder of lupines. Or give it oil of sweet almonds, with sugar candy, and a scruple of anniseed; it purgeth new-born babes from green choler and stinking phlegm; and if it be given with sugar-pap, it allays the griping pains of the belly. Also anoint the belly with oil of dill, or lay pellitory stamp, with oil of chamomile to the belly.

Sect. 2:

Sect. 2. *Of Weakness in New-born Infants.*

WEAKNESS is an accident that many children bring into the world along with them, and is often occasioned by the labour of the mother; by the violence and length whereof they suffer so much that they are born with so much weakness, that 'tis many times difficult to know whether they are alive or dead, the body appearing so senseless, and their face so blue and livid, that they seem to be quite choaked: and even after some hours, their shewing any signs of life, is attended with so much weakness, that it looks like a return from death, and that they are still upon the borders of this kingdom.

In this case, the best way to help the infant, is to lay him speedily in a warm bed and blanket, and carry him to the fire, and then let the midwife sup a little wine, and spout it into his mouth, repeating it often if there be occasion. Let her apply linen to the breast and belly dipped in wine; and let the face be uncovered, that he may breathe the more freely, also let the midwife keep its mouth a little open, cleanse the nostrils with small linen tents dipt in white wine, that so he may receive the smell of it, and let her chafe every part of his body well with warm cloths, to bring back the blood and spirits, which being retired inwards thro' weakness oft puts him in danger of being choaked. By the application of these means the infant will insensibly recover strength, and begin to stir his limbs by degrees; and at length to cry, which tho' it be but weakly at first, yet afterwards as he breathes more freely, will cry stronger and stronger.

Sect. 3. *Of the Fundament being closed up in a New-born Infant.*

ANother effect that new-born infants are liable to, is, to have their fundament closed up, by means whereof they can neither evacuate the new excrements engendered by the milk they suck, nor that which was amassed in their intestines, whilst in their mother's belly, which is certainly mortal, without a speedy remedy. There have been some female children, who have had their fundament so closed, and yet have voided the excrements of the guts by an orifice which nature, to supply that defect, had made within the neck of the womb.

For the cure or remedy of this, we must take notice that the fundament is closed two ways; either by a single skin, thro' which one may discover some black and blue marks, proceeding from the excrements retained, which if one touch with the finger, there is felt a softness within, and thereabouts it ought to be pierced; or else it is quite stopped up by a thick fleshy substance, in such sort, that there appears nothing without, by which its true situation may be known. When there is nothing but the single skin which makes the closure; operation is very easy, and the children may do very well; for then an apertion, or opening may be made with a small incision knife, cross-ways, that it may the better receive a round form, and that the place may not afterwards grow together; taking great care not to prejudice the sphincter or muscle of the rectum. The incision being thus made, the excrements will certainly have issue. But if by reason of their long stay in the belly they

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are become so dry that the infant can't void them; then let a small clyster be given, to moisten and bring them away; afterwards put a linen tent into the new-made fundament, which at first had best be anointed with honey of roses, and towards the end with a drying cicatrizing ointment, such as *urguentum album*, or *pompilix*, observing to cleanse the infant of his excrements, and dry it again as soon and as often as he evacuates them; that so the apersion may be prevented from turning into a malignant ulcer.

But now if the fundament be stopped up in such manner that neither mark nor appearance can be either seen or felt, then the operation is much more difficult: and even when it is done, the danger is much more of the infant's escaping it. And therefore if it be a female, and that it sends forth its excrements by the way I have mentioned before, 'tis better not to meddle, than by endeavouring to remedy an inconvenience, run an extreme hazard of the infant's death. But when there is no vent for the encrements, without which death is unavoidable, there the operation is justifiable.

The operation in this case must be thus. Let the operator, with a small incision-knife that hath but one edge, enter into the void place, and turning the back of it upwards within half a finger's breadth of the child's rump, which is the place where he will certainly find the intestine, let him thrust it so forward, that it may be open enough to give free vent to the matters there contained, being especially careful of the sphincter; after which let the wound be dressed according to the method above directed.

Sect. 5. *Of the Thrush, or Ulcers in the Mouth of an Infant.*

THE thrush is a distemper that children are often subject to, and it arises from bad milk, or from foul humours in the stomach; for sometimes tho' there be no ill quality in the milk itself, yet it may be corrupt in the child's stomach, because of its weakness, or for some other indisposition, in which acquiring an acrimony instead of being well digested, there arises from thence biting vapours, which forming a thick viscosity, do thereby produce this distemper.

It is often difficult, as physicians tell us, because it is seated in hot and moist places, where the putrefaction is easily augmented, and for that the remedies supplied cannot lodge there, being soon washed away with spittle. But if they arise from too hot a quality in the nurse's milk, care must be taken to temper and cool it, prescribing her cool diet, bleeding and purging her also, if there be occasion.

Take lentils husked, powder them, and lay it upon the child's gums. Or take melidium in flower, half an ounce, and with oil of roses make a liniment. Also wash the child's mouth with barley and plantane-water, and honey of roses, or syrup of dry roses, mixing with them a little verjuice, or juice of lemons, as well to loosen and cleanse the vicious humours, which cleave to the inside of the child's mouth, as to cool those parts, which are already over-heated. This may be done by means of a small fine rag, fastened to the end of a little stick, and dipped therein, wherein the ulcers may be gently rubbed, being careful not to put the
child

child to too much pain, lest an inflammation make the distemper worse. The child's body must also be kept open, that the humours being carried to the lower parts, the vapours may not ascend, as 'tis usual for them to do, when the body is costive, and the excrements too long retained. If the ulcers appear malignant, let such remedies be used as do their work speedily, that the evil qualities that cause them being thereby instantly corrected, their malignity may be thereby prevented: and in this case touch the ulcers with plantane-water sharpened with spirits of vitriol; for the remedy must be made sharp, according to the malignity of the distemper. It will not be unnecessary to purge ill humours out of the whole habit of the child, by giving half an ounce of succory with rhubarb.

Sect. 6. *Of Pains in the Ears, Inflammations, Moistures, &c.*

THE brain in infants is very moist, and hath many excrements which nature cannot send out at its proper passages: they get often to the ears, and there cause pains, flux of blood, with inflammation, and matter with pain. And in children is hard to be known, having no other way to make it known, but by constant crying; you will also perceive them ready to feel their ears themselves, but will not let the mother touch them, if they could help it; and sometimes you may discern the parts about the ears to be very red. These pains, if let alone, are of dangerous consequence, because they may bring forth watching and epilepsy; for the moisture breeds worms there, and fouls the spongy bones, and by degrees incurable deafness.

To prevent all these ill consequences, allay the pain with all convenient speed, but have a care of using strong remedies. Therefore only use warm milk about the ears, with the decoction of poppy tops, or oil of violets; to take away the moisture, use honey of roses, and let *aqua mellis* be dropt into the ears. Or, take virgin's honey half an oz. red wine two ounces, allum, saffron, petre salt, each a drachm; mix them at the fire. Or, drop in hemp-seed-oil with a little wine.

Sect. 7. *Of Redness and Inflammation of the Buttocks, Groin, and Thighs of a young Child.*

IF there be not great care taken to change and wash the child's beds, as soon as they are fouled with the excrements, and to keep the child very clean, their acrimony will be sure to cause redness, and beget a smarting in the buttocks, groin, and thighs of the child, which by reason of the pain, will afterwards be subject to inflammations, which follow the sooner, thro' the delicacy and tenderness of their skin, from which the outward skin of the body is, in a short time, separated and worn away.

The remedy of this is two-fold; that is to say, first, to keep the child cleanly, and in the second place, to take off the sharpness of its urine. As to keeping it cleanly, she must be a sorry nurse that needs to be taught how to do it, for if she lets it but have dry, clean, and warm beds and cloths, as often and as soon as it has fouled and wet them, either by its urine or excrements, it will be sufficient: and as to the second, the taking off the sharpness of the child's urine, that must be done by the nurse's keeping a cooling diet, that her milk
may

may have the same quality, and therefore she ought to abstain from all things that may heat it. But, besides these, cooling and drying remedies are requisite to be applied to the inflamed parts; therefore, let the parts be bathed with plantane-water, with a fourth part of lime-water added to it, each time the child's excrements are wiped off; and if the pain be very great, let it only be fomented with luke warm milk. The powder of a post to dry it, or a little mill-dust strewed upon the parts affected, may be proper enough, and it is used by several women. Also *urguentum album*, or *diapampholigos*, spread upon a small rag, in form of a plaister, will not be amiss. But the chief thing must be the nurse's taking great care to wrap the inflamed parts with fine rags, when she opens the child, that those parts may not be gathered and pained by rubbing them together.

Sect. 8. *Of Vomiting in Young Children.*

VOMITING in children proceed sometimes from too much milk, and sometimes from bad milk, and is often from a moist loose stomach, for as dryness retains, so looseness lets go; this is for the most part without danger in children, and they that vomit from their birth are the lustiest; for the stomach, not being used to meat and milk, being taken too much, crudities are easily bred, or the milk is corrupted; and it's better to vomit these up than to keep them in: but if vomiting last long, it will cause an atrophy, or consumption, for want of nourishment.

To remedy this, if it be from too much milk, which you may know from the child's being better after vomiting, give it less. If it be from corrupted milk,

milk, that which is vomitted is yellow and green, or ill coloured, and stinking: in this case mend the milk, as has been shewed before: cleanse the child with honey of roses, and strengthen its stomach with syrup of miats and quinces made into an electuary. If the humour be hot and sharp, give the syrup of pomegranates, currants and coral; and apply to the belly the plaister of bread, the stomach cerot, or bread dipt in hot wine. Or, take oil of mastich, quinces, mints, wormwoods, each half an ounce; of nutmegs by expression, half a drachm, chymical oil of mints, 3 drops. Coral hath an occult property to prevent vomiting, and is therefore hung about their necks.

Sect. 9. Of breeding Teeth in Young Children.

THIS is a very great, and yet necessary evil in all children, having variety of symptoms joined with it; they begin to come forth, not all at a time, but one after another, about the sixth and seventh month; the fore-teeth coming first, then the eye-teeth, and last of all the grinders: the eye-teeth cause more pain to the child than any of the rest, because they have a very deep root, and a small nerve, which hath communication with that which makes the eye move. In the breeding of their teeth, first they feel an itching in their gums, then they are pierced as with a needle, and pricked by the sharp bones, whence proceeds great pains, watching, and inflammation of the gums, fever, looseness, and convulsions, especially when they breed their eye-teeth.

The signs when children breed their teeth are these. First, it is known by their time, which is usually about the seventh month. 2. Their gums

are swelled, and they feel a great heat there, with an itching, which makes them put their fingers in their mouth to rub them, from whence moisture distils down into the mouth, because of the pain they feel there. 3. They hold the nipple faster than before. 4. The gum is white where the tooth begins to come, and the nurse, in giving them suck finds the mouth hotter, and that they are much changed, crying every moment, and cannot sleep, or but very little at a time. The fever that follows breeding of teeth, comes from cholic humours inflamed by watching, pain, and heat. And the longer teeth are breeding, the more dangerous it is, so that many in the breeding of them die of fevers and convulsions.

For remedy, two things are to be regarded; one is to preserve the child from the evil accidents that may happen to it by reason of the great pain; the other, to assist as much as may be the cutting of the teeth, when they can hardly cut the gums themselves.

For the first of these, i. e. the preventing these accidents to the child, the nurse ought to take great care to keep a good diet, and to use all things that may cool and temper her milk, that so a fever may not follow the pain of the teeth. And to prevent the humour from falling too much upon the inflamed gums, let the child's belly be kept always loose, by gentle clysters, if he be bound; though oftentimes there is no need of them, because they are at those times usually troubled with a looseness, and yet, for all that, clysters may not be improper neither.

As to the other, which is to assist in cutting of the teeth, that the nurse must do from time to time, molifying and loosening them, by rubbing them

with her finger dipt in butter or honey, or let the child have a virgin's wax-candle to chew upon. Or anoint the gums with the mucilage of quince made with mallow water, or with the brains of a hare; also foment the cheeks with the decoction of *althæa*, and chamomile flower and dill, or with the juice of mallows and fresh butter. If the gums are inflamed, add juice of night-shade and lettuce. I have already said, the nurse ought to keep a temperate diet; I will now add, that barley-broth, water-gruel, raw eggs; prunes, lettuce, and endive are very good for her, but let her avoid salt, sharp, biting, and peppered meats; and wine.

Sect. 10. *Of the Flux of the Belly, or Looseness in Infants.*

IT is very common for infants to have the flux of the belly, or looseness, especially upon the least indisposition; nor is it to be wondered at, seeing their natural moistness contributes so much thereto; and if it be extraordinary violent, such are in better store of health, than those that are bound. This flux, if violent, proceeds from divers causes; as first, from breeding of teeth, and is then commonly attended with a fever, in which the connection is hindered, and the nourishment corrupted. 2. From watching. 3. From pain. 4. From stirring of the humours by a fever. 5. When they suck or drink too much in a fever. Sometimes they have a flux without breeding of teeth, from outward cold in the guts or stomach, that obstructs concoction. If it be from teeth, it is easily known, for the signs in breeding of teeth will discover it. If it be from external cold, there are signs of other causes. If from a humour flow-
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ing from the head, there are signs of a catarrh, and the excrements are frothy. If crude and raw humours are voided, there is wind, belching, and flegmatic excrements. If they be yellow, green, and stink, the flux is from a hot and sharp humour. It is best in breeding of teeth, when the belly is loose, as I have said before; but if it be too violent, and you are afraid it may end in a consumption, it must be stopt, and if the excrements that are voided be black, attended with a fever, it is very bad.

The remedy in this case has a principal respect to the nurse, and the condition of the milk must chiefly be observed: the nurse must be cautioned that she eat no green fruit, nor things of a hard concoction. If the child suck not, remove the flux with purges, such as leave a bleeding quality behind them: as syrup of honey of roses, or a clyster. Take the decoction of millium myrobolans, each 2 or 3 ounces; with an ounce or two of syrup of roses make a clyster. After cleansing, if it proceed from a hot cause, give syrup of dried roses, quinces, mirtles, coral, mastich, hartshorn, red roses, or powder of mirtles, with a little sanguis draconis. Also anoint with oil of roses, mirtles, mastich, each 2 drachms, with oil of mirtles and wax make an ointment. Or, take red roses, moulins, each a handful, cypress-roots, 2 drachms, make a bag, boil it in red wine, and apply it to the belly; or, use the plaister of bread, or stomach ointment. If the cause be cold, and excrements white, give syrup of mastich, and quinces, with mint-water. Use outwardly, mints, mastich, cummin; or, take rose-seeds, an ounce, cummin, an-

niseeds, each 2 drachms; with oil of mastich, wormwood, and wax, make an ointment.

Sect. II. *Of the Epilepsy and Convulsions in Children.*

THIS is a distemper that is the death of many young children, and proceeds from the brain first, as when the humours are bred in the brain that cause it, either from the parents, or from vapours, or bad humours that twitch the membranes of the brain; it is also sometimes caused from other distempers, and from bad diet; likewise the tooth-ach, when the brain consents, causes it, and so does a sudden fright. As to the distemper itself, it is manifest, and well enough known where it is; and as to the cause whence it comes, you may know by the signs of the disease, whether it comes from bad milk or worms, or teeth; if these are all absent, it is certain that the brain is first affected: if it come with small-pox or measles it ceaseth when they come forth, if nature be strong enough.

For the remedy of this grievous and often mortal distemper, give the following powder to a child, to prevent it, as soon as it is born. Take male piony-roots, gathered in the decrease of the moon, a scruple, with leaf gold made a powder. Or, take piony roots, a drachm, piony seeds, mistletoe of the oak, elk's hoof, man's skull, amber, each a scruple, musk 2 grains; make a powder. The best part of the cure is taking care of the nurse's diet, which must not be disorderly by any means. If it be from corrupt milk, provoke a vomit, to do which, hold down the tongue, and put a quill dipt in sweet almonds down the throat. If it comes
from

from worms give things that will kill the worms, as you will be directed in the following section. If there be a fever, respect that also, and give coral smaraged, and elk's hoof. In the fit, give epileptic water, as lavender-water, and rub with oil of amber, or hang a piony-root elk's hoof, smaraged about the neck.

As to a convulsion, it is when the brain labours to cast out that which troubles it: the matter is in the marrow of the back, and fountain of the nerve, it is a stubborn disease, and often kills.

For remedy whereof, in the fit wash the body, especially the back-bone, with decoction of althæa lilly-roots, piony and chamomile-flowers, and anoint it with man's and goose grease, oils of worms, orris, lillies, foxes, turpentine, mastich, storax, and calamint. The sun-flower is also very good, boiled in water, to wash the child.

Sect. 12. *Of the Worms in Young Children.*

Several physicians have observed, that children have had worms even in the mother's belly, and have voided them after they were born; but they are not so common: the truth is, worms, generally speaking, are bred by mixing milk with other meats, in hot and moist constitutions, and from sweet-meats and summer fruits, both which worms love. As to their form, it is divers, but they are generally round and long, or broad and little, and they are known to be in a body where there is excessive crying, gnashing of teeth, troublesome sleeping, stinking breath, and much spirit: also, a dry cough, loathings, vomitings, hic-up, want of appetite, or too much thirst, a belly swelled,

ed, or bound, or too loose, the urine thick and white, coming away with pain, when the belly is empty, and the worms want food: there is also a cold sweat over the face and a high colour, and sudden paleness; and sometimes a fever and convulsion, which ceaseth presently: but all these are signs of round worms rather than flat; and these long round worms are the worst, and sometimes have eaten thro' the guts and belly: with a fever these are very dangerous: those that are of a white colour, are better than those of other colours.

As to the remedy: I shall first offer something by way of preservation; it being better to prevent the breeding of worms, than to expel them after they are bred: the way to prevent the breeding them is by eating meats of good juice, with oranges and pomegranates, and avoiding all sorts of sweet, fat, and slimy meats, flesh, milk, and summer-fruits, and to drink wine with scurvy-grass and sorrel-water in it, and with powder of hart's-horn. And let the belly be kept close with clysters for children; or give the decoction of sebestines before the meat, or of wormwood and scordium, but children will not take things that are bitter; therefore take grass-water, and juice of lemons or citrons, or a drop or two of spirit of vi-riol.

For cure: when you know that the child has the worms, kill and repel them with powder of caroline, worm-seed, hart's-horn, or 8 grains of mercurius-dulcis, infuse them a night in grass-water, and cast away the substance of the mercury, and give the water. Or, take worm seed 2 drachms, caroline, hart's-horn prepared, each a drachm; roots of piony, dittany, magesiary, of coral, each a scruple; make a powder; or give the essence of peach-flowers, or the decoction of fern-

fern-water, half an ounce, or an ounce. If there be a fever with the worms, (as it sometimes happens) then use juice of lemons, pomegranates, oranges, vinegar, hart's-horn, besoar, confection of hyacinths: or this following potion. Take grafs-water, syrup of juice of citrons, an ounce, of violets, half an ounce, spirits of vitriol, 2 drops; give 2 spoonfuls. Or, take raisins 10, figs 7, boil them in water; take of it 4 ounces, add sugar an ounce and a half; make a clyster, and give it the child. It is best to use variety, that the worms may not be too familiar with one. If you can get the child to take it, bitter things will be best at the mouth; but apply to the fundament those that are sweet, and therefore a clyster of sweet milk will be proper. Also apply peach-leaves to the ravel, bruised, for a cataplasm; of ox-gall, wormwood, gith, century, worm-feed, and wax, half an ounce; make an ointment. Or, take half an ounce of treacle, mix it with juice of wormwood, and apply it to the navel.

END of the FIRST PART.

THE HISTORY OF THE

REIGN OF

CHARLES THE FIRST

BY

JOHN BURNET

OF THE UNIVERSITY OF OXFORD

IN TWO VOLUMES

VOLUME THE FIRST

THE SECOND PART

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THE
COMPLETE and EXPERIENCED
M I D W I F E.
P A R T II.

Containing proper and safe *Remedies* for the Curing of all those distempers that are peculiar to the Female Sex; and especially those that are any Obstruction to the bearing of Children.

HAVING finished the first part of this book, and therein, I hope, amply made good my promise to the reader, I am now come to treat of the distempers peculiar to the female sex. In which it is not my design so to enlarge as to treat of all the distempers they are incident to, but those only to which they are most subject when in a breeding condition, and those that keep them from being so: for each of which distempers I have laid down such proper and safe remedies, as with the divine blessing may be sufficient to repel them, and since as amongst all the diseases to which human nature

is subject, there is none that more diametrically opposes the very end of our creation, and the design of nature in the formation of different sexes : and the power whereby given us for the work of generation than that of sterility or barrenness, which, where it prevails, render the most accomplished midwife but a useless person, and destroys the design of our book ; I think, therefore, barrenness is an effect that deserves our first consideration.

CH A P. I.

Of Barrenness ; its several Kinds, with proper Remedies against it ; and the Signs of Insufficiency both in Men and Women.

Sect. 1. *Of Barrenness in General.*

AS there is no general rule but will admit of some exception, so this first chapter seems to be an exception against the second part ; for tho' I have promised to treat herein only of diseases peculiar to the female sex, yet this chapter will engage me to speak of a defect in men, barrenness being an effect incident to them also ; and therefore it is so necessary to be handled with respect to men as well as women, that without treating of it so, I shall not be able to make good the old proverb, of *setting the saddle on the right horse.*

Having promised this, and thereby anticipated an objection, I shall now proceed to the subject matter of this chapter, which is barrenness.

Barrenness is either natural or accidental.

Natural barrenness is, when a woman is barren tho' the instruments of generation are perfect both in herself and husband, and no preposterous or diabolical

bolical course used to cause it, and neither age nor disease, nor any natural defect hindering, and yet the woman remains naturally barren, and conceives not.

Now this may proceed from a natural cause, for if the man and woman be of one complexion, they seldom have children; and the reason is clear, for the universal course of nature being formed by the Almighty, of a composition of contraries, cannot be increased by a composition of likes; and therefore if the constitution of the woman be hot and dry, as well as of the man, there can be no conception. And if on the contrary, the man should be of a cold and moist constitution as well as the woman, the effect would be the same. And this barrenness is purely natural: the only way to help it, is, for people before they marry, to observe each other's constitution and complexion, if they design to have children; if their complexions and constitutions be alike, they are not fit to come together, for the discordant nature makes the only harmony in the work of generation.

Another natural cause of barrenness is want of love between the man and wife: love is that vital principal that ought to admire each organ in the act of generation, or else 'twill be spiritless and dull, for if their hearts be not united in love, how should their seed unite to cause conception; and this is sufficiently evinced in that there never follows a conception upon a rape; therefore if men and women design to have children, let them live so that their hearts as well as their bodies may be united, or else they may miss of their expectations.

A third cause of natural barrenness, is the letting of virgins blood in the arm, before their natural courses are come down, which is usually in the four-

fourteenth and fifteenth years of their age ; sometimes perhaps before the thirteenth, but never before the twelfth. And because usually they are out of order, and indisposed before the purgations come down, their parents run to the doctor to know what is the matter, and he strait^{ly} prescribes opening a vein in the arm, seeing it was foulness of blood, which was the cause of offending, and this makes her well at present ; and when the young virgin happens to be in the same disorder again, the mother strait runs to the surgeon, and he directly uses the same remedy ; and by these means the blood is diverted from its proper channel, that it comes not down the womb as in other women ; and so the womb dries up, and the woman is for ever barren. The way to prevent this, is to let no virgin blood in the arm, before her courses come well down ; but if there be occasion, in the foot ; for that will bring the blood downwards, and by that means provoke the menstrues to come down.

Another natural cause of barrenness is the debility of persons in copulation ; if persons perform not that act with all the heat and ardour that nature requires, they may as well let it alone, and expect to have children without it ; for frigidity and coldness never produces conception. Of the cure of this we will speak by and by, after I have spoken of,

Accidental Barrenness, which is what is occasioned by some morbid matter or infirmity upon the body, either of the man or the woman, which being removed, they become fruitful. And since (as I have before noted) the first and great law of the creation was to increase and multiply, and barrenness is the direct opposition to the law, and frustrates the end of our creation ; and that is so great an affliction to divers to be without children, and
often

often causes man and wife to have hard thoughts one of another, each party thinking the cause not in them. I shall here, for the satisfaction of all well meaning people, set down the signs and causes of insufficiency, both in men and women, premising the first, that when people have not children, they must not presently blame either party, for neither may be in fault, but perhaps God sees it not good, for reasons best known to himself, to give them any; of which we have divers instances in story. And tho' the Almighty in the production of nature, works by natural means, yet where he withholds his blessing, natural means are ineffectual; for it is the blessing which is the power and energy by which nature brings her production forth.

Sect. 2. *Signs and Causes of Insufficiency in Men.*

ONE cause may be in some, viscioufness in the yard, as if the same be crooked, or any ligaments thereof distorted and broken, whereby the ways and passages thro' which the seed should flow, come to be stopped or vitiated.

Another cause may be too much weakness of the yard, and tenderness thereof, so that it is not strongly enough erected to inject seed into the womb; for the strength and stiffness of the yard very much conduces to conception, by reason of the forcible injection of the seed.

Also if the stones have received any hurt, so that they cannot exercise their proper gift in producing seed, or if they be oppressed with any inflammation or tumour, wound or ulcer, or drawn up within the belly, and, not appearing outwardly; these are signs of insufficiency, and causes of barrenness.

Also

Also a man may be barren, by reason of the defect of seed; as first, if he cast forth no seed at all, or less in substance than is needful. Or, secondly, if the seed be vicious, or unfit for generation, as on the one side, it happens in bodies that are gross and fat, the matter of it being defective; and on the other side too much leanness, or continual wasting or consumption of the body, destroy the seed; nature turning all the matter and substance thereof into nutriment of the body.

Too frequent copulation is also one great cause of barrenness in men; for it attracteth the seminal moisture from the stones, before it is sufficiently prepared and concocted; so if any one by daily copulation do exhaust and draw out all the moisture of his seed, then do the stones draw the moist humours from the superior veins into themselves; and so having but a little blood in them, they are forced of necessity to cast it out raw and unconcocted, and thus the stones are violently deprived of the moisture of their veins, attract the same from the other superior veins, and the superior veins from all the other parts of the body, for their proper nourishment, thereby depriving the body of all its vital spirits. And therefore no wonder that those that use immoderate copulation are very weak in their bodies; seeing their whole body is thereby deprived of their best and purest blood, and of the spirit in so much that many who have been too much addicted to that pleasure, have killed themselves in the very act; and therefore it is no wonder if such unconcocted and undigested seed be unfit for generation.

Gluttony and drunkenness, and other excesses, do so much hinder men from fruitfulness, and make them unfit for generation.

But

But among other causes of barrenness in men, this also is one that makes them barren, and almost of the nature of eunuchs, and that is the incision or the cutting of their veins behind their ears, which in case of distempers is oftentimes done: for according to the opinion of most physicians and anatomists, the seed flows from the brain by those veins behind the ears, more than from any other part of the body. From whence it is very probable that the transmissiō of the seed is hindered by the cutting of the veins behind the ears, so that it cannot descend at all to the testicles, or come thither very crude and raw. And thus much for the signs and causes of barrenness in men.

Sect. 3. *Signs and Causes of Insufficiency, or Barrenness in Women.*

ALTHOUGH there are many causes of the barrenness of women, yet the chief and principal are internal, respecting either the privy part, the womb, or menstruous blood.

Therefore *Hippocrates* saith, (speaking of the either easy or difficult conception of woman) the first consideration is to be had of their species, for little women are more apt to conceive than great; slender than gross; white and fair, than ruddy and high coloured; black than wan: those that have their veins conspicuous are more apt to conceive than others; but to the very flesh is evil; to have great swelling breasts is good.

The next thing to be considered, is the monthly purgations, whether they have been duly every month, and whether they flow plentifully, and are of a good colour, and whether they have been equal every month, for so they ought to be.

Then

Then the womb or place of conception is to be considered, it ought to be clean and sound, dry and soft; not retracted or drawn up; nor prone, nor descending downwards, nor the mouth thereof turned awry, not too close shut. But to speak more particularly,

The first parts to be spoken of, are the pudenda, or privities, and the womb; which parts are shut and inclosed, either by nature, or against nature; and from hence such women are called *imperfores*; and in some women the mouth of their womb continues compressed, or closed up, from the time of their birth, until the coming down of their courses, and then on a sudden when their terms press forward to purgation, they are molested with great and unusual pains; some of these break of their own accord, others are dissected and opened by a physician, others never break at all, and it brings death.

All these *Aetius* particularly handles, shewing that the womb is shut three manner of ways, which hinders conception. And the first is, when the lips of the pudenda grow or cleave together; the second is, when there are certain membranes growing in the middle part of the matrix within; the third is when (tho' the lips and bosom of the pudenda may appear fair and open) the mouth of the womb may be quite shut up; all which are occasions of barrenness, in that they hinder both the use of man, the monthly courses, and conception.

But amongst all the causes of barrenness in woman, the greatest is the womb, which is the field of generation; and if this field be corrupt, it is in vain to expect any fruit, let it be never so well sown, for it may be unfit for generation, by reason of many distempers, to which it is subject: as for instance, overmuch heat, and overmuch cold: for
women

women, whose wombs are too thick and cold, cannot conceive, because coldness extinguisheth the heat of the human seed. Immoderate moisture of the womb also destroys the seed of man and makes it ineffectual, as corn sown in ponds and marshes : and so does overmuch dryness in the womb, so that the seed perisheth for want of nutriment. Immoderate heat of the womb is also a cause of barrenness, for it scorseth up the seed, as corn sown in the drought of summer : for immoderate heats hurts all parts of the body, for no conception can live in the woman.

When unnatural humours are engendered, as too much slegm, tympanies, wind, waters, worms, or any such evil humours abounding contrary to nature, it causes barrenness; as does all the terms not coming down in due order, as I have already said.

A woman may also have other accidental causes of barrenness ; (at least such as may hinder her conception) as sudden frights, anger, grief, and perturbation of the mind ; too violent exercises, as sleeping, dancing, running, after copulation, and the like. But I will now add some signs by which these things may be known.

If the cause of barrenness be in the man, through overmuch heat in his seed, the woman may easily feel that in receiving it.

If the nature of the woman be too hot, and so unfit for conception, it will appear by having her terms very little, and the colour inclining to yellowness, she is also very hasty, cholerick, and crafty, her pulse beats very swift, and she is very desirous of copulation.

If you would know whether the fault is in the man or the woman, sprinkle the man's urine upon a lettuce

134 THE EXPERIENCED MIDWIFE.

a lettuce leaf, and the woman's upon another, and that which dries away first is unfruitful. Also take five wheat corns, and seven beans, put them into an earthen pot, and let the party make water therein. Let this stand seven days, and if in that time they begin to sprout, then the party is fruitful, but if they sprout not, then the party is barren, whether it be man or woman. This is a certain sign.

There are some that make this experiment of a woman's fruitfulness. Take myrrh, red storax, and some such odoriferous things, and make a perfume of it, which let the woman receive into the neck of the womb, thro' a funnel; if the woman feels the smoke ascend thro' her body to the nose, then she is fruitful, otherwise barren. Some also take garlick, and beat it, and let the woman lie on her back upon it, and if she fell the scent thereof to her nose, it is a sign of fruitfulness.

Culpeper, and others also, give a great deal of credit to the following experiment.

Take a handful of barley, and steep half of it in the urine of the man, and the other half in the urine of the woman, for the space of 24 hours, and then take it out, and set it, the man's by itself, and the woman's by itself; set it in a flower pot, or some other thing where you may keep it dry; then water the man's every morning with his own urine, and the woman's with hers; and that which grows first is the most fruitful; and if one grow not at all, that party is naturally barren.

But now having spoken enough of the disease, it is high time to assign the cure.

If barrenness proceeds from stoppage of the menstrues, let the woman sweat, for that opens the parts; and the best way to sweat is in a hot house. Then let the woman be strengthened by drinking a draught

of wine, wherein a handful of stinking arrack, first bruised, has been boiled. For by a secret magnetic virtue it strengthens the womb, and by a sympathetic quality, removes any disease thereof. To which add also a handful of vervain, which is very good to strengthen both the womb and the head, which are commonly afflicted together by sympathy. Having used these 2 or 3 days, if they come not down, take calaminth, penny royal, thyme, betony, dittany, burnet, feverfew, mugwort, sage, piony-roots, juniper berries, half a handful of each, or so many as can be gotten: let these be boiled in beer, and drank for her ordinary drink.

Take one part of gentian roots, 2 parts of centory, distil them with ale in an alembic, after you have bruised the gentian roots, and infused them well. This water is an admirable remedy to provoke the terms. But if you have not this water in readiness, take a drachm of centory, and half a drachm of gentian roots, bruised, boiled in posset drink, and drink a draught of it at night going to bed. Seed of wild navew beaten to powder, and a drachm of it taken in the morning in white wine, also is very good; but if it do not do, you must be let blood in the legs. And be sure you administer your medicines a little before the full of the moon, or between the new and full moon, by no means in the wane of the moon, if you do, you will find them ineffectual.

If barrenness proceeds from the overflowing of the menstrues, then strengthen the womb, as you were taught before, and afterwards anoint the reins of the back with oil of roses, oil of mirtle, oil of quinces every night, and then wrap a piece of white bays about your reins, the cotton side next the skin, and keep the same always to it. But above all, I commend

commend this medicine to you. Take comfry leaves or roots, and clown-wound-wort, of each a handful, bruise them well, and boil them in ale, and drink a good draught of it now and then. Or, take cinnamon, cassia lignea, opium, of each 2 drachms; myrrh, white pepper, galbanum, of each 1 drachm, dissolve the gum and opium in white wine; beat the rest into powder, then make into pills, by mixing of them together exactly, and let the patient take 2 pills every night going to bed; but let the pills not exceed 15 grains.

If barrenness proceed from a flux of the womb, the cure must be according to the cause producing it, or which the flux proceeds from, which may be known by its signs; for a flux of the womb being a continual distillation from it for a long time together, the colour of what is voided shews what humour it is that offends; in some it is red, and that proceeds from blood putrified; in some it is yellow, and that denotes choler; in others white and pale, and that denotes flegm; if pure blood comes out, as if a vein were opened, some corrosion or gnawing of the womb is to be feared. All of them are known by these signs.

The place of conception is continually moist with the humours, the face is ill coloured, the party loaths meat, and breathes with difficulty, the eyes are much swollen, which is sometimes with pain. If the offending humour be pure blood, then you must let blood in the arm, and the cephalic vein is fittest to draw back the blood, and then the juice of plantane and comfry be injected into the womb. If flegm be the cause, let cinnamon be a spice used in all her meats and drinks; and let her take a little Venice treacle or mithridate, every morning. Let her boil burnet, mugwort, feaverfew and vervain, in

all

all her broths. Also half a drachm of myrrh taken every morning, is an excellent remedy against this malady. If choler be the cause, let her take burage, bugloss, red roses, endive, and succory roots, lettuce and white poppy-seed, of each a handful; boil these in white wine till one half be wasted: let her drink half a pint every morning; to which half pint add syrup of peach-flowers and syrup of chicory, of each an ounce, with a little rhubarb, and this will gently purge her. If it proceed from putrified blood, let her be blooded in the foot, and then strengthen the womb, as I have directed in stopping of the menstrues.

If barrenness be occasioned by the falling out of the womb, as sometimes happens, let her apply sweet scents to her nose, such as civit, galbanum, storax, calamitis, wood of aloes, and such other things as are of that nature: and let her lay stinking things to the womb, such as assa foetida, oil of amber, or the smoak of her own hair being burnt; for this is a certain truth, that the womb flies from all stinking, and to all sweet things. But the most infallible cure in this case is this: take a common burdock leaf (which you may keep dry if you please all the year) apply this to her head, and it will draw the womb upwards. In fits of the mother, apply it to the soles of her feet, and it will draw the womb downwards. Bur-seed beaten into powder, it draws the womb which way you please, according as it is applied.

If barrenness proceed from a hot cause, let the party take whey, and clarify it, then boil plantane leaves and roots in it, and drink it for her ordinary drink. Let her also inject the juice of plantane into the womb with a syringe: if it be in winter, when

when you can get the juice, make a strong decoction of the leaves and roots in water, and inject that up with a syringe, but let it be but blood-warm, and you will find this medicine of great efficacy. And further: to take away barrenness proceeding of hot causes, take often conserve of roses, cold lozenges made of tragacanth, the confections of traifantali, and use to smell the camphire, rose-water and saunders. It is also good to bleed the basilica, or liver-vein, and take 4 or 5 ounces of blood, and then take this purge. Take electuarium de epithymo de succo rosarum, of each 2 drachms and an half, clarified whey 4 ounces; mix them well together, and take it in the morning fasting; sleep after it about an hour and an half, and fast 4 hours after it. And about an hour before you eat any thing, drink a good draught of whey. Also, take lilly-water 4 ounces, mandragora-water, 1 ounce, saffron half a scruple, beat the saffron to powder, and mix it with the waters, and drink them warm in the morning: use this 8 days together.

Some excellent Remedies against Barrenness, and to cause Fruitfulness.

TAKE broom-flowers, smallage, parsley-seed, cummin, mugwort, feaverfew, of each half a scruple; aloes half an ounce, India salt, saffron, of each half a drachm, beat and mix them well together, and put it to 5 ounces of feaverfew-water, warm, stop it up close, and let it stand and dry in a warm place; and thus do 2 or 3 times one after another, then make each drachm into 6 pills, and take one of them every other day before supper.

For

THE EXPERIENCED MIDWIFE. 139

For a purging medicine against barrenness: take conserve of bēdicta lax, 1 quarter of an ounce; depillo, 3 drachms; electuary de succo rosarum, 1 drachm, mix them together with feverfew-water, and drink it in the morning betimes. About three days after the patient hath taken the purge, let her be let blood four or five ounces in the median, or common black vein in the right foot; and then take five days one after another, field ivory, 2 dr. and a half in feverfew-water; and during the time, let her sit in the following bath an hour together morning and night. Take wild yellow rapes, daucus, balsom wood and fruit, allkeys, of each two handfuls; red and white behen, broom-flowers, of each a handful; musk 3 grains, amber, saffron, of each one scruple; boil all in water sufficiently, but the musk, saffron, amber, and broom-flowers, put them into the decoction, after it is boiled and strained.

A confection, very good against barrenness. Take pissachia, pingles, eringoes, of each an ounce; saffron 1 drachm; lignum aloes, gallingade, mace, coriophilla, balm-flowers, red and white behen; of each 4 scruples; shaven ivory, cassia bark, of each 2 scruples, syrup of confectioned ginger, 12 ounces, white sugar 6 ounces, decoct all these well together in 12 ounces of balm-water, and stir it well together, then put to it musk and amber, of each half a scruple, take hereof the quantity of a nutmeg 3 times a day, in the morning, an hour before noon, and an hour after supper.

But if the cause of barrenness, either in man or woman be thro' scarcity, or diminution of the natural seed, then such things are to be taken as do increase the seed, and incite or stir up to venery.

and further conception, which I shall here set down, and so conclude this chapter of barrenness.

For this yellow rape seed baked in bread, is very good, also young flat fish not too much salted; also saffron, the tails stincus, and long pepper prepared in wine. Let such people eschew all sour, sharp, doughth, and slimy meats, long sleep after meat, with surfeiting, and drunkenness, and as much as they can, keep themselves from sorrow.

These things following increase the natural seed, and stir up venery; and recover the seed again, when it is lost, viz. eggs, milk, rice boiled in milk, sparrows brains, flesh, bones and all; the stones and pizzles of bulls, bucks, rams, and bears; also cock stones, lamb stones, partridges, quails, and pheasants eggs; and this is an undeniable aphorism, that whatsoever any creature is addicted unto, they move or incite the man or woman that eats them, to the like; and therefore partridges, quails, sparrows; &c. being extremely addicted to venery, they work the same effect in those men and women that eat them. Also take notice, that in what parts of the body the faculty which you would strengthen, lies, take the same part of the body of another creature, in whom the faculty is strong, as a medicine. As for instance, the procreative faculty lies in the testicles, therefore, cock-stones, lamb stones, &c. are proper to stir up venery. I will also give you another general rule. All creatures that are fruitful being eaten, make them fruitful that eat them; as crabs, lobsters, prawns, pigeons, &c. The stones of a fox dried, and beaten to powder, and a drachm taken in the morning in sheep's milk, and the stones of a boar taken in the like manner are very good. The heart of a male quail carried about the man, and the heart of a female quail

carried

carried about the woman, causeth natural love and fruitfulness. Let them also that would increase their seed, eat and drink of the best as near as they can; for, *sine cerero & libero friget Venus*, is an old proverb, which is, without good meat and good drink, Venus will be frozen to death.

Pottages are good to increase the seed, such as are made of beans, pease, and lupines, and mix the best with sugar: French beans, wheat sodden in broth, anniseed; also onions stewed, garlics, leeks, yellow rapes, fresh bugwort roots, eringo-roots, confected, ginger confected, &c. Of fruits, hazel-nuts, Cypress-nuts, pistacia, almonds, and March panes made thereof. Spices good to increase seed, are cinnamon, cardanum, galengal, long-pepper, cloves, ginger, saffron, assa-foetida, take a drachm and a half in good wine, is very good for this purpose.

The weakness and debility of a man's yard being a great hinderance to procreation, let him, to strengthen it, use the following ointments. Take six, oil of bever-cod, marjoram gentle, and oil of costus, of each a like quantity, mix it into an ointment, and put to it a little musk, and with it anoint the yard, cods, &c. Take of horse emmets three drachms, oil of white sesanum, oil of lillies, of each an ounce; pound and bruise the ants, and put them to the oil, and let them stand in the sun six days, then strain out the oil, and add to it euphorium 1 scruple, pepper and rue, of each 1 drachm, mustard seed, half a drachm. Set this again all together in the sun 2 or 3 days; then anoint the instruments of generation therewith. But so much of this chapter.

C H A P. II.

The Diseases of the Womb.

I Have already said, that the womb is the field of generation : and if this field be corrupted, it is in vain to expect any fruit though it be never so well sown ; it is therefore not without reason, that I intend in this chapter to set down the several distempers to which the woman is obnoxious, and proper and safe remedies against them.

Sect. 1. *Of the hot Distempers of the Womb.*

THIS distemper consists in the excess of heat : for the heat of the womb is necessary for conception, but if it be too much, it nourisheth not the seed, but disperseth its heat, and hindereth the conception. This preternatural heat, is sometimes from the birth, and makes them barren ; but if it be accidental, it is from hot causes, that bring the heat and the blood to the womb : it arises also from internal and external medicines, and too much hot meats, drinks, and exercise. Those that are troubled with this distemper have but few courses, and those yellow, black, burnt, or sharp ; have hair betimes on their privities, they are very prone to lust, and are subject to the head-ach and abound with choler. And, when the distemper is strong upon them, they have but few terms, and out of order, being bad and hard to flow, and in time they become hypochondriacks, and for the most part barren, having sometimes a frenzy of the womb.

THE EXPERIENCED MIDWIFE. 143

The remedy is to use coolers, so that they offend not the vessels that must be open for the flux of the menses. Therefore inwardly use coolers, such as succory, endive, violets, water lillies, sorrel, lettuce, fanders, and syrups and conserves made thereof. Also take conserve of succory, violets, water-lillies, burrage, each an ounce ; conserve of roses half an ounce, diamargariton fringed diatriascantal, each half a drachm ; and with syrup of violets, or juice of citrons, make an electuary. For outward applications make use of ointment of roses, violets, water-lillies, gourds, Venus narvel applied to the back and loins.

Let the air be cool, her garments thin, and her meat be with endive, lettuce, succory, and barley. Give her no hot meats, nor strong wine, unless mixt with water. Rest is good for her, but she must abstain from copulation, tho' she may sleep as much as she will.

Sect. 2. *Of the cold Distemper of the Womb.*

THIS distemper is the reverse of the foregoing, and equally an enemy to generation, being caused by a cold quality, abounding to excess, and proceeds from a too cold air, rest, and idleness, and cooling medicines. It may be known by an aversion to lechery, and taking no pleasure in the act of copulation, when they spend their seed. Their menses are flegmatic, thick, and slimy, and do not flow as they should. The womb is windy, and the seed crude and waterish. It is the cause of obstructions and barrenness, and hard to be cured.

For the cure of this distemper, use this water. Take galengal, cinnamon, nutmeg, mace, cloves,

each 2 drachms; ginger, cubeds, zedory, cardanum, each an ounce; grains of Paradise, long pepper, each half an ounce, beat them and put them in six quarts of wine, for 8 days. Then add sage, mint, balm; motherwort, each 3 handfuls. Let them stand 8 days more, then pour off the wine, and beat the herbs and the spices, and then pour on the wine, and distill them. Or you may use this. Take cinnamon, nutmegs, cloves, mace, ginger, cubeds, cardumums, grains of Paradise, each an ounce and half, galengal 6 drachms, long pepper, half an oz. zedoary 5 drachms, bruise them and add 6 quarts of wine; put them in a cellar 9 days, daily stirring them; then add mint 2 handfuls, and let them stand 14 days; pour off the wine, and bruise them, and then pour on the wine again, and distil them. Also anoint with oil of lillies, rue, angelica, bays, cinnamon, cloves and mace, and nutmeg. Let her diet and air be warm, her meat of easy concoction, seasoned with annised, fennel, and thyme, and let her avoid sweet fruits, and milk diets.

Sect. 3. *Of the Inflation of the Womb.*

THE inflation of the womb, is stretching of it by wind, called by some a windy mole; the wind proceeding from a cold matter, whether thick or thin, contained in the veins of the womb, by which the weak heat thereof is overcome, and it either flows thither from other parts, or is gathered there by cold meats or drinks: cold air may be a procuring cause of it also, as women that lye in are exposed to it. This wind is contained either in the cavity of the vessels of the womb, or between the tunicles, and it may be known by a swelling in the region of the womb, which sometimes reaches to the navel,

navel, loins, and diaphragma; and it rises and abates as the wind increaseth or decreaseth. It differs from the dropfy, in that it never swells so high; and that neither the physician nor midwife may take it for a conception, let them observe the signs of women with child laid down in the first part of this book; and if one sign be wanting, they may suspect it to be an inflation, of which this is a further sign. That in conception the swelling still increaseth, but in an inflation, it sometimes increaseth and sometimes decreaseth. Also if you strike upon the belly, in an inflation, there will be a noise, but not so in case there be a conception. It also differs from a mole, because in that there is a weight and hardness in the belly; and, when they move from one side to another, they feel a weight which moveth; but not so in this. If the inflation be without the cavity of the womb, the pain is greater and more extensive, nor is there any noise, because the wind is more pent up.

This distemper is neither of any long continuance nor dangerous, if looked after in time; and, if it be in the cavity of the womb, is more easily expelled. To which purpose give her diadhpuicon, with a little castper, and sharp clysters that expel wind. If this distemper happen to a woman in travail, let her not purge after delivery; nor bleed, because it is from a cold matter, but if it come after child bearing, and her terms come not down sufficiently, and that she has fulness of blood, let the saphæna vein be opened. After which, let her take the following electuary: take conserve of bettony and rosemary, of each an ounce and half; candied eringos, citron-peels candied, each half an ounce; diacimium, diagalengal, each a dram, oil of anniseed six drops, and with syrup of citrons make an electuary. For

outward applications, make a cataplasm of rue, mugwort, chamomile, dill, callamints, new pennyroyal. Thyme, with oil of rue, keir, and chamomile, and let the following clyster to expel wind be put into the womb. Take agnus, castus, rye, calamint, each an handful; anniseed, castus, cinnamon, each 2 drachms, boil them in wine to half a pint. She may likewise use sulphur baths, and spaw waters, both inward and outward, because they expel wind.

Sect. 4. *Of a Dropsy in the Womb.*

THIS is another morbid effect of the womb, proceeding from water, as that before-mentioned did from wind; by which the belly is so swelled, that it deceives many, causing them to think themselves with child, when indeed they are not; being no other than an unnatural swelling raised by the gathering together of waters, from moisture mixed with the terms, and with an evil signification from the liver and spleen; also by immoderate drinking, or the eating of crude meats; all which causing a repletion, do suffocate the native heat, it may also be caused by the over-flowing of the courses, or by any other immoderate evacuation. The signs of this distemper, are the lower parts of the belly, with the privities, are puffed up and are pained; the feet swell, the natural colour of the face decays; the appetite is departed; the terms also are fewer, and cease before their time, her breasts are also soft, but without milk. This is distinguished from a general dropsy, in that the lower parts of the belly are most swelled; neither does the sanguificative faculty appear so hurtful, nor the urine so pale, nor the countenance so soon changed, neither are the superior

perior parts so extenuated, as in a general dropfy. But yet this distemper foretels the total ruin of the natural functions, by that singular consent the womb hath with the liver, and therefore an evil habit of body, or a general dropfy will follow.

For the cure of this disease, first mitigate the pain with fomentations of mellilot, mallows, linseed, chamomile, and altheæa. Then let the humour be prepared with syrup of stæthus, hyssop, calamint, mugwort of both sorts, with the distilled waters, or decoctions of dedder, marjoram, sage, origan, speerage, penny-royal, and bettony : and let her purge with senun, agarack, rhubarb, and alateriam. To purge the water, take calaments, mugwort, lovage, penny-royal, each a handful ; faviil, a pugil ; madder-roots, angelica, of each half an ounce ; boil them in water, and sweeten them with sugar. Or, if she likes it better, you may make broths of the same. Also take specirem diambres, diamefci, dulcis, diacalamenti, diacinnamont, diacimini, troce de mirrha, of each 2 drachms, sugar one pound, with bettony water make lozenges, and let her take of them 2 hours before meals. Apply also to the bottom of the belly ; as hot as can be endured : a little bag of chamomile, cummin, and mellilot boiled in oil of rue, and anoint the belly and privities with urgentum agrippæ, mingling therewith oil of irces. Let the lower parts of the belly be covered with a plaister of bay-berries, or with a cataplasin, made of cummin, chamomile and briony-roots, adding thereto cows and goats dung. For injection into the womb : take asarum-roots, 3 drachms, penny-royal, calamint, each half a handful, favin, a pugil, mechoacan a drachm : anniseed, cummin, each half a drachm. Boil them, and take six ounces strained, with oil of elder and orris, each an ounce ; and in-

ject it into the womb by a merrenchita; let the air be hot and dry. Moderate exercise may be allowed; but much sleep is forbidden. She may eat the flesh of partridges, larks, chickens, mountain-birds, hares, coney, &c. and let her drink be wine, mixed with a little water.

Sect. 5. *Of the Inflammation of the Womb.*

THIS effect is a tumour possessing the womb, accompanied with unnatural heat, by obstruction, and gathering together of corrupt blood: for if the blood that comes to the womb, get out of the vessels into its substance, and grow hot and putrify, it causeth an inflammation, either all over, or in part, before or behind, above or below: this happens also by suppression of the menses, repletion of the whole body, immoderate copulation, often handling of the genitals, difficult child-birth, vehement agitations of the body, or by falls or blows. The signs of this inflammation are tumours, with heat and pain in the region of the womb, with stretch and heaviness in the privities, also pain in the head and stomach with vomiting, coldness of the knees, convulsions of the neck, doting, trembling of the heart: and sometimes straitness of breath, by reason of heat which is communicated to the diaphragma, or midriff, and the breasts sympathizing with the womb, are pained and swelled; but more particularly, if the fore part of the matrix be inflamed, the privities are grieved, and the urine is suppressed, or flows forth with difficulty: if it be behind, the loins and back suffer, and the belly is bound; if the inflammation be in the bottom of the womb, the pain is towards the navel: if the neck of the womb be affected, the midwife, putting up
her

her finger, may feel the mouth of it retracted, and closed up, with a hardness about it. As to the prognostics of it, all inflammations of the womb are dangerous, and sometimes deadly, especially if it be all over the womb: if the woman be with-child she rarely escapes, an abortion follows, and the mother dies.

As to the cure: first let the humours flowing to the womb be repelled; for the effecting of which, after the belly hath been opened by cooling clysters, letting of blood will be needful: open therefore a vein in the arm, but have a care of bleeding in the foot, least thereby you draw more blood to the womb; but afterwards to derive; if it be from the terms stopt you may. The opinion of *Galen* is, that the blood may be diverted by bleeding in the arm, or cupping the breasts: and that it may be derived by opening the ankle vein, and cupping upon the hips. Then purge gently with cassia, rhubarb, fenna, and mirobolans, thus. Take of fenna, 2 drachms; anniseed one scruple, mirobolans half an ounce, barley-water a sufficient quantity, make a decoction, dissolve it in syrup of succory, with rhubarb 2 ounces, pulp of cassia half an ounce, oil of anniseed 2 drops, and make a potion. Also at the beginning of the disease anoint the privities and reins with oil of roses and quinces. Make plaisters of plantain, linseed, barley-meal, mellilot, fenugreek, and whites of eggs; and if the pain be vehement, add a little opium. For repellors and anodines, take Venus narvel, purslain, lettuce, houseleek, vine leaves, each a handful, boil them in wine, and barley-meal 2 ounces; pomgranate flowers 2 drachms, boil a drachm with oil of roses, and make a poultice, or, take diacibilion simple, 2 ounces, juice of Venus-narvel, and plantain, each

half an ounce, take of fenugreek, mallow-roots, decocted figs, linseed, barley meal, dove's dung, turpentine, of each 3 drachms; deer's suet half a drachm, opium, half a scruple, and with wax make a plaister. After it is ripe, break it by motion of the body, coughing, sneezing, or else by cupping and pessaries: as, take rue half an handful, figs an ounce, boil them soft, and honey and leven, each an ounce, pigeon's dung, orris-roots, each half a drachm; with wool make a pessary. After it is broken, and the pains abate, then cleanse and heal the ulcer with such cleansers as these; viz. Whey, barley-water, honey, wormwood, smallage, gribus, orris, birth-wort, myrrh, turpentine, allum: as take new milk boiled a pint, honey half a pint, orris powder half an ounce, and use it hot very often every day. If it break about the bladder, use an emulsion of cold seeds, whey and syrup of violets. Let her drink barley-water, or clarified whey, and her meat be chickens, and chicken broth, boiled with endive, succory, sorrel, bugloss and mallows.

Seet. 6. Of a schirrosity and hardness of the Womb.

A Phlegmon, or swelling in the womb neglected, or not perfectly cured often produces a schirrosity in the matrix, which is a hard, insensible, unnatural swelling, causing barrenness, and begetting an indisposition of the whole body. The immediate cause is a thick earthy humour (as natural melancholy for instance) gathered in the womb, and causing a schirrous without inflammation. It is a proper schirrous when there is neither sense nor pain, and is an improper schirrous when there is some little sense and pain. This distemper is more usual

usual in women of a melancholy constitution, and also such as have not been cleansed from their menstrues; or from the retention of the lochia or after-purgings: it is likewise sometimes caused by eating corrupt meat; or those inordinate longings called *pica*, to which breeding women are often subject; and lastly, it may also proceed from obstructions and ulcers in the womb, or from some evil effects in the liver or spleen. It may be known by these signs; if the effect be in the bottom of the womb, she feels as it were a heavy burden representing a mole, yet differing, in that the breasts are attenuated, and the whole body also. If the neck of the womb be hardened no outward humour will appear, the mouth of it is retracted; and touched with the finger, feels hard; nor can she have the company of a man without great pains and prickings. This schirrosity or hardness is (when confirmed) incurable, and will turn into a cancer or dropsy; and ending in a cancer, proves deadly: the reason of which is, because the native heat in those parts being almost smothered, is hardly to be restored again.

For the cure of this, first prepare the humour with syrup of burrage, succory, epileymum, and clarified whey; which being done, take of these pills following, according to the strength of the patient; take *hicra picra*, six drams; black hellebore, *poliphody*, of each two drams and a half; *agarick*, *lapis lazuli abluti* *salis Indiae*, *coloquintida*, of each one dram and a half; mix them, and make pills. The body being purged, proceed to mollify the hardness as followeth; anoint the privities and the neck of the womb with the following ointment, take oil of capers, lillies, sweet almonds, *jessamine*, each an ounce; fresh butter, hen's-grease, goose-grease, of each an ounce; mucilage, fenu-

greek, althæa, ointments of althæa; each six drams; ammoniacum, dissolved in wine, an ounce; which, with wax, make into an ointment. Then apply below the navel dichylon femelli; and emulsions of figs, mugwort, mallows, penny-royal, althæa, fennel roots, mellilot, fenugreek, and linseed boiled in water: but for injection, take bdellium dissolved in wine, oil of sweet almonds, lillies, chamomile, each two ounces, marrow of veal-bone, and hen's-grease, each an ounce, with the yolk of an egg. The air must be temperate; and as for her diet, let her abstain from all gross viscous and salt meats, as pork, fish, old cheese, &c.

Sect. 7. Of the Straitness of the Womb, and its Vessels.

THIS is another effect of the womb, which is an obstruction to the bearing of the children, as hindering both the flowing of the menstrues and conception; and is seated in the vessels of the womb, and of the neck thereof. The cause of this straitness are thick and rough humours that stop the mouths of the veins and arteries: these humours are bred either of gross, or too much nourishment, when the heat of the womb is so weak that it cannot attenuate the humour; which by reason thereof, either flow from the whole body, or are gathered into the womb. Now the vessels are made closer, or straiter several ways: sometimes by inflammation, or schirrous, or other tumours; sometimes by compression; or by a scar, or flesh, or membrane, that grows after the wound. The signs by which this is known are the stoppage of the terms, not conceiving, crudities abounding in the body, which are known by particular signs; for if there was a wound or the Scundine was pulled out by force, phlegm

THE EXPERIENCED MIDWIFE. 153

phlegm comes from the wound. If stoppage of the terms be from an old obstruction by humours, it is hard to be cured: if it be only from the disorderly use of astringents, it is more curable; if it be from a schirrous or other tumour, that compresseth or closeth the vessels, the disease is incurable.

For the cure of that which is curable: obstructions must be taken away, phlegm must be purged, and she must be let blood, as will be hereafter directed in the stoppage of the terms. Then use the following medicines; take of anniseed and fennel-seed, each a drachm; rosemary, penny-royal, calamint, bettony-flowers, each an ounce; castus, cinnamon, galengal, each half an ounce; saffron half a dram, with wine. Or take asparagus-roots, parsleyroots, each an ounce; penny-royal, calamints, each a handful; wall-flowers, dill-flowers, each two pugils; boil, strain, and add syrup of mugwort, an ounce and an half. For a fomentation, take penny-royal, mercury, calamints, marjoram, mugwort, each two handfuls: sage, rosemary, bays, chamomile-flowers, each a handful; boil them in water, and foment the groin and bottom of the belly, or let her sit up to the navel in a bath; and then anoint about the groin, with oil of rue, lillies, dill, &c.

Sect. 8. *Of the falling of the Womb.*

THIS is another evil effect of the womb, which is both very troublesome, and also a hindrance to conception. — Sometimes the womb falleth to the middle of the thighs, nay almost to the knees, and may be known then by its hanging out: now that which causeth the womb to change its place, is when the ligiments, by which it is bound to the

other parts, are not in order: for there are four ligaments, two above, broad and membranous, that come from the peritonæum; and two below that are nervous, round and hollow; it is also bound to the great vessels by veins and arteries, and to the back by nerves; now the place is changed, when it is drawn another way; or when the ligaments are loose, and it falls down by its own weight. It is drawn on one side when the menstrues are hindered from flowing, and the veins and arteries are full; namely those which go to the womb. If it be a mole on one side, the liver and spleen cause it; by the liver veins on the right side, and the spleen on the left, as they are more or less filled. Others are of opinion it comes from the solution of the connection of the fibrous neck, and the parts adjacent; and that is from the weight of the womb descending; this we deny not; but then the ligaments must be loose or broken. But women in a dropsy could not be said to have the womb fall down, if it came only from looseness; but in them it is caused by the saltness of the water, which dries more than it moistens.—Now if there be a little tumour within or without the privities, like a skin stretched, or a weight felt about the privities, it is nothing else but a descent of the womb; but if there be a tumour like a goose egg, and a hole at the bottom, there is at first a great pain in the parts to which the womb is fastened, as the loins, the bottom of the belly, and the *Os Sacrum*; which proceeds from the breaking or stretching of the ligaments, but a little after the pain abateth, and there is an impediment in walking; and sometimes blood comes forth from the breach of the vessels, and the excrements and urine are stopped, and then it

it oftentimes proves mortal, especially if it happens to women with child.

For the cure of this distemper, first put it up, before the air alter it, or it be swollen or inflamed: and therefore first of all give a clyster to remove the excrements; then lay her upon her back, with her legs abroad, and thighs lifted up, and head down; then take the tumor in your hand, and thrust it in without violence: if it be swelled by alteration and cold, foment it with the decoction of mallows, althæa, line, fenugreek, chamomile-flowers, bay-berries; and anoint with oil of lillies and hen's-grease. If there be an inflammation, don't put it up, but fright it in, by putting a red hot iron before it, and making a shew as if you intended to burn it, but first sprinkle upon it the powder of mastich, frankincense, and the like: thus, take frankincense, mastich, each 2 drams; sarcocol, steeped in milk, a dram; mummy, pomegranate flowers, sanguis, draconis, each half a dram; when it is put up, let her lie with her legs stretched, and one upon the other, for 8 or 10 days, and make a pessary in the form of a pear, with cork or sponge, and put it into the womb, dipped in sharp wine or juice of Acadia, with powder of Sanguis, with Galbanum, and Bdellium. Also apply a cupping glass with great flame, under the navel or paps, or to both kidneys; and lay this plaister to the back; take Opoponix, 2 ounces; florax liquid, half an ounce, mastich, frankincense, pitch, bole, each 2 drams, then with wax make a plaister: or, take laudanum a dram and a half, mastich and frankincense, each half a dram; wood-alloes, cloves, spike, each a dram: ash-coloured ambergrease, 4 grains, musk half a scruple: make two round plaisters to be laid on each side the navel: make a fume of snail skins

salted, or of garlick, and let it be taken in by the funnel. Use also astringent fomentations of bramble-leaves, plantain, horse-tails, mirtles, each a handful, worm seed 2 pugils, pomegranate-flowers half an ounce, boil them in wine and water. For an injection, take comfry roots 1 ounce, rupturwort 2 drams, yarrow, mugwort, each half an ounce, boil them in red wine, and inject it with a syringe. To strengthen the womb, take hart's-horn, bays, of each a dram; myrrh, half a dram, make a powder for 2 doses, and give it with sharp wine. Or you may take zedoary, parsnip-seed, crab's-eyes prepared, each a dram; nutmeg half a dram, and give a dram in powder; but astringents must be used with great caution, lest by stopping the courses, a worse mischief follow. To keep it in its place: make rollers and ligatures, as for the rupture; and put pessaries into the bottom of the womb, that may force it to remain. I know some physicians object against this, and, say they hinder conception: but others, in my opinion, much more justly affirm, that they neither hinder conception, nor bring any inconvenience; nay, so far from that, that they help conception, and retain it, and cure the disease perfectly.——Let the diet be such as has drying, astringent, and glewing qualities, such as rice, starch, quinces, pears, and green cheese; but let summer fruits be avoided. And let her wine be astringent and red.

C H A P. III.

Of Diseases relating to Women's Monthly courses.

Sect. I. *Of Women's Monthly courses in General.*

THAT a divine providence which with a wisdom worthy of itself, has appointed woman to conceive

ceive by coition with the men, and to bear and bring forth children; has provided for the nourishment of children during their recess in the womb of their mother by that redundancy of the blood which is natural to all women, and which flowing out at certain periods of time (when they are not pregnant) are from thence called terms, and mences from their monthly flux of excrementitious and unprofitable blood: now that the matter flowing forth is excrementitious, is to be understood only with respect to the redundancy and overplus thereof; being an excrement only with respect to its quantity; for as to its quality it is as pure and incorrupt as any blood in the veins. And thus appears from the final cause of it, which is the propagation and conversation of mankind; and also from the generation of it, it being the superfluity of the last ailment of the fleshy parts. If any ask, if the menstrues be not of a hurtful quality, how can it cause such venomous effects; as if it fell upon trees and herbs, it makes the one barren, and mortifies the other? I answer. This malignity is contracted in the womb; for the woman wanting native heat to digest this superfluity, sends it to the matrix, where seating itself till the mouth of the womb be dilated it becomes corrupt and mortified; which may easily be, considering the heat and moistness of the place: and so this blood being out of its proper vessels, and too long retained offends in quality. But if frigidity be the cause why women cannot digest all their last nourishment and by consequence have these monthly purgations, how come it to pass, may some say, why they are of so cold a constitution more than men? of this I have already spoken in the chapter of barrenness: only chiefly thus: the author of our being has laid an injunction upon men and women to propagate

propagate their kind, hath also wisely fitted them for that work; and seeing that in the act of coition there must be an agent and a patient, (for if they be both of one constitution, there can be no propagation) therefore the man is hot and dry, the woman cold and moist; he is the agent, she the patient or weaker vessel, that she might be subject to the office of the men. It is therefore necessary that the woman should be of a cold constitution, because in her is required a redundancy of matter for the infant depending on her. And this is wisely ordained by nature, for otherwise the child would detract from and weaken the principal parts of the mother; which would most unnaturally render the production of the infant the destruction of the parent. Now these monthly purgations usually begin about the 14th year, and continue till the 46th or 50th year; yet not so constantly, but that oftentimes there happens a suppression; which is sometimes natural, and sometimes morbid, when they are naturally suppressed it is either in breeding women, or such as give suck; but that which is morbid, must be the subject of the following sections.

Sect. 2. Of the Suppression of the Monthly courses.

THE suppression of the terms, which is morbid, is an interception of that customary evacuation of blood which should come from the matrix every month, and which proceeds from the matter vitiated.—The cause of this suppression is either internal or external: the internal cause is either instrumental or material; in the blood or in the womb. The blood may be faulty two ways, in quantity or in quality; in quantity when it is so consumed that there is not an overplus left, as in
viragoes

viragoes and all virile women, who through their heat and strength of nature, digest and consume all their best nourishment : but women of this constitution, are rather to be accounted *Anthropophagæ* : that is women eaters, than women-breeders ; because they consume one of the principals of generation, which gives a being to the world, i. e. the menstruous blood. The blood may also be consumed and the terms stayed by too much bleeding at the nose : and likewise by a flux of the hemorrhoids, or by a dysenteria, evacuations, and chronical and continual diseases. But secondly, the matter may be vicious in quality, as if it be sanguineous, flegmatical, bileous, or melancholious ; each of these if they offend in grossness, will cause an obstruction in the veins.

The womb also may be in the fault divers ways ; as by the narrowness of the veins and passages by apothumes, tumours, ulcers, and by overmuch cold and heat, the one vitiating the action, and the other consuming the matter ; also by an evil composition of the matter ; also by an evil composition of the uterine parts : by the neck of the womb being turned aside ; and sometimes (though but rarely) by a membrane or excrescence of flesh growing about the womb.

The external cause may be heat or driness of the air, immoderate watching, great labour, violent motions, whereby the matter is so consumed, and the body is so exhausted that there is no redundant blood remaining to be expelled ; whence it is recorded of the Amazons, that being active, and always in motion, they had little or no monthly fluxes : it may also be caused by cold, and most frequently it is so, making the blood vicious and gross, condensing and binding up the passages,
that

that it cannot flow forth. — The signs of the disease are pains in the head, neck, back, and loins, with weariness of the whole body, but especially of the hips and legs, by reason of a confinement which the womb hath in those parts: if the suppression proceeds from cold, it causes a heavy sluggish disposition, a pale colour, a slow pulse, the urine crude, waterish and much in quantity, and no desire to copulation; the excrements of the guts being usually retained; but if it proceeds from heat, the signs are contrary. If it be natural, and be caused by conception, it may be known by drinking water and honey after supper, going to bed; for if after the taking it, it causeth the woman to feel a bearing pain about the navel and lower parts of the belly, it is a sign she hath conceived, and that the suppression is natural: if not, then it is vicious, and ought medicinally to be taken away: otherwise many dangerous diseases will follow, such as swoonings, faintings, intermission of pulse, obstructions, chachexies, jaundice, dropsies, hardness of the spleen, epilepsies, apoplexies, frenzies, melancholy, passions, &c. Which makes it highly necessary to say something now of the cure.

The cure of this distemper must be by evacuation, for this suppression is a plethoric affect: it will therefore be best in the midst of the menstrual period to open the liver vein; and for the reversion of the humour two days before the wonted evacuation, opens the saphena veins of both feet: and if the repletion be not great, apply cupping glasses to the legs and thighs: after letting blood, the humours must be prepared and made flexible with syrup of *stachas*, hare-hound, hysson, bettony, maiden-hair, mugwort, fumitory: then let a bath be made of rue, feverfew, marjoram, favin, bay-leaves, penny-royal,

royal, chamomile, and juniper-berries: after which, take of the leaves of nep, bettony, succory, maiden-hair, of each one handful, make a decoction, and take thereof 3 ounces; syrup of mugwort, succory, maiden-hair: mix each half an ounce: and after she comes out of the bath, let her drink it off. Then purge, pil. de agarick, elephang. coch. fætid. *Galen* in this case commends pilula de hjeracum. coloquintida; for as they are proper to purge the humour offending, so do they open the passage of the womb. If the stomach be overcharged, let her take a vomit; but if it be so prepared as to act both ways, lest the humours should be too much turned back by working only upwards; to which end, take trochisk of agaric 2 drachms, infuse them in 3 ounces of oximel, in which dissolve benedict. laxat. half an ounce, and of the electuary dissarum one scruple; and let her take it after the manner of a purge. When the humour hath been thus purged, you may proceed to more proper and forcible remedies: take extract of mugwort, 1 scruple and half, musk ten grains, trochisks of myrrh, one drachm and a half, rinds of cassia, parsley-seed, castor, of each one scruple; and with juice of smallage, or after supper going to bed. Also administer to the lower parts by suffumigation, pessaries, unctions, injections, and infusions; make suffumigations of amber, galbanum, melantham, bay-berries, lug-wort, cinnamon, nutmegs, cloves, &c. Make pessaries of figs, and the leaves of mercury bruised, and rolled up with lint. Make injections, of the decoction of mercury, bettony, origin, mugwort and figs, and inject it into the womb by an instrument fit for that purpose. For unction, take ladant, oil of myrrh, of each 2 drachms; oil of lillies, almonds, capers, chamomile, of each
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half an ounce; and with wax make an unguent, with which let the place be anointed. Let the air be hot and dry, her sleep shorter than ordinary; let her use moderate exercise before meals, and let her meat and drink be attenuating.

Sect. 3, *Of the overflowing of the Monthly Courses.*

THIS distemper is directly contrary to that of which I have spoken in the foregoing section, and is no less dangerous than the other, and therefore requires to be spoken to next in order. This distemper is a sanguineous excrement, proceeding from the womb, and exceeding in time and quality. I call it sanguineous, because the matter of the flux is only blood, and differs from the whites, (of which I shall speak afterwards) and I say it proceeds from the womb, because there are two ways by which the blood flows forth; one is, by the internal veins in the body of the womb, which is properly called the monthly flux; the other is, by those veins which are terminated in the neck of the matrix, which some physicians call the hemorrhoids of the womb. And that it exceeds in quantity, is when they flow about three days; but this is the most certain sign of their excess in flowing, when they flow so long, that the faculties of the body are thereby weakened; for in bodies abounding with gross humours, this immoderate flux does sometimes unburthen nature of her load, and is not to be stopt without advice from a physician.

The cause of this immoderate flowing is either external or internal; the external cause may be the heat

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heat of the air; lifting and carrying heavy burthens, unnatural child-births, falls, &c. The internal cause may be three fold, in the matter, instrument, or faculty; the matter, which is the blood, may be vicious two ways, first, in quantity, being so much that the veins are not able to contain it; secondly, in quality, being adust, sharp, waterish, or unconcocted. The instrument, viz. the veins are faulty by the dilation of the orifice, which may be caused two ways; first, by the heat of the constitution, climate, or season, heating the blood, whereby the passages are dilated, and the faculty weakened, that it cannot retain the blood; secondly, by falls, blows, violent motion, breaking of a vein, &c.

This inordinate flux may be known by the appetite's being decayed, the concoction depraved, and all the actions of the body weakened, the feet swelled, the colour of the face changed, and a general feebleness possesseth the whole body. If it comes by the breaking of a vein, the body is sometimes cold, the blood flows forth on heaps, and that suddenly with great pain, if it comes thro' heat, the orifice of the veins being dilated, then there is little or no pain, yet the blood flows faster than it doth in an erosion, or sharpness of blood, she feels a great heat scalding the passage: it differs from the other two, in that it flows not so suddenly nor so copiously as they do. If it be by weakness of the womb, she has an aversion to copulation. If it proceeds from the blood, drop some of it upon a cloth, and when it is dry, you may judge of the quality by the colour; if it be choleric, it will be yellow; if melancholy, black; if flegmatic, waterish, and whitish.

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The cure of this consists in three particulars; first, in repelling and carrying back the blood, secondly, in correcting and taking away the fluxibility of the matter: thirdly, in corroborating the veins of faculties. For the first, to cause a regression of the blood, open a vein in her arm, and draw out so much blood as the strength of the patient will permit; and that not together, but at several times; for thereby the spirits are less weakened and the retraction so much the greater. Apply the cupping-glass to the liver, that the regression may be in the fountain. To correct the fluxibility of the matter cathartical means moderated with astringents may be used. If it be caused by sharpness of blood, consider whether the erosion be by salt phlegm, or a dust colour: if by salt phlegm, prepare with syrup of violets, wormwood, roses, citron-peels, succory, &c. then take this purgation following. Take mirabolans, cherbul, half an oz. trochisks of agaric, 1 drachm; with plantain water make a decoction; add thereto syr. rosat, lax. 3 ounces, and make a potion. If by a dust colour, prepare the body with syrup of roses, myrtles, sorrel, purslain mixed with water of plantain, knot-grass, and endive, then purge with this potion. Take rinds of mirabolans, rhubarb, of each 1 dr. cinnamon 15 grains, infuse them one night in endive-water; add to the straining pulp of tamarinds, cassia, of each half an ounce, syrup of roses 1 oz. and make a potion. If the blood be waterish and unconcocted, as it is in hydropical bodies, and flows forth by reason of the tenury, to draw off the water will be profitable: to which end, purge with agaric, claterium, and coloquintida. Sweating is also very proper in this case, for by it the matter offending is taken away, and the motion of the blood

blood is carried to the outward parts. To procure sweat, use cardamum water with mithridate, or the decoction of guaicum, sassafras, sarsaparella; gum of guaicum does also greatly provoke sweat; and pills of sarsaparella taken every night going to bed, are worthily commended. If the blood flows forth from the opening or breaking of a vein, without any evil quality of itself, then ought corroboratives only to be applied, which is the thing to be done in this inordinate flux, bole armoniack 1 scrup. London treacle 1 drachm, old conserve of roses, half an ounce, with syrup of myrtles make an electuary. Or, if the flux have continued long, take of mastich, 2 drachms, olibani, tyech. de careble, of each 1 drachm; balanstium one scruple, make a powder; with syrup of quinces make it into pills, and take one always before meals.

Sect. 4. *Of the Terms coming out of Order, either before or after usual Time.*

BOTH these have an ill construction of body; every thing is beautiful in its order, in nature as well as in morality; and if the order of nature be broke, it shews the body to be out of order; of each of these effects briefly.

When the monthly courses come before their time, it shews a depraved excretion, that comes for the time often, flowing sometimes twice a month; the cause why they come sooner, is in the blood, which stirs up the expulsive faculty in the womb, or sometimes in the whole body, caused oftentimes by the person's diet; which increases the blood too much, makes it too sharp, or too hot, and if the retentive faculty of the womb be weak, and the expulsive faculty strong, and of a quick sense, it brings them

them forth the sooner, and sometimes they flow sooner by reason of a fall, stroke, or some violent passion, which the parties themselves can best relate. If it be from heat, thin and sharp humours, it is known by the distemper of the whole body. The looseness of the vessels, and weaknesses of the retentive faculty, is known from a moist and loose habit of body. It is more troublesome than dangerous, but hinders conception, and therefore the cure is necessary for all, but especially such as desire children. If therefore they come too soon from the faculty provoked by too much plethory, let the person bleed, and use a separate diet, exercising herself as much as she can. If it proceed from a sharp blood, let her temper it by a good diet, and medicines. To which purpose let her use baths of iron-water, that corrects the distemper of the bowels, and then evacuate. If it proceeds from the retentive faculty, and looseness of the vessels, it is to be corrected with gentle astringents.

As to the courses flowing after their usual time, the causes are thickness of the blood, and the smallness of its quantity, with the straitness of the passage and weakness of the expulsive faculties; either of these single may stop the courses, but if they all concur, they render the distemper the worse. If the blood abound not in such a quantity as may stir up nature to expel it, its purging must necessarily be deferred till there be enough. And if the blood be thick, the passage stopt, and the expulsive faculty weak, the menses must needs be out of order, and the purgation of them retarded.

For the cure of this, if the quantity of blood be small, let her use a larger diet, and very little exercise. If the blood be thick and foul, let it be made thin, and the humours mixed therewith be evacuated,

ated. It is good to purge after the courses have done flowing, and to use calamints; and indeed the oftner she purge the better. She may also use fumes and pessaries, apply cupping-glasses without scarification to the inside of the thighs; and rub the legs, and scarify the ankles, and hold the feet in warm water, four or five days before the courses come down. Let her also anoint the bottom of her belly with things proper to provoke the terms.

Sect. 5. *Of the False Courses, or Whites.*

THE whites or false courses, are a foul excretion from the womb; for from the womb proceeds not only the menstruous blood, but accidentally many other excrements, which by the ancients are comprehended under the title of PUS GYNAJKAJKS; which is a distillation of variety of corrupt humours thro' the womb, flowing from the whole body, or part of the same; which tho' called the whites, are sometimes blue or green, or reddish; not flowing at a set time, or every month, but in a disorderly manner, sometimes longer, and sometimes shorter. It is different from the running of the reins, being both less in quantity, and whiter and thicker in quality, and coming at a great distance: it is different also from those night pollutions, which is only in sleep, and proceed from the imagination of venery.

The course of this distemper is either promiscuously in the whole body, by a cacochymia, or weakness of the same; or in some of the parts; as in the liver, which by the inability of the sanguificative faculty, causeth a generation of corrupt blood; and then the matter is reddish; sometimes in the gall, being remiss in its office, not drawing away those

those cholerick superfluities which are ingendered in the liver, and then the matter is yellowish; sometimes in the spleen, not defecating and cleansing the blood of the dregs and excrementitious parts, and then the matter flowing forth is blackish. It may also come from catarrhs in the head, or from any other putrified or corrupt member. But if the matter of the flux be whiter, the case is either in the stomach or reins. In the stomach by a flegmatical and crude matter there contracted and vitiated thro' grief, melancholy, and other distempers; for otherwise if the matter were only pituitous, and no ways corrupt or vitiated, being taken into the liver, it might be converted into blood; for phlegm in the ventricle, is called nourishment half digested. But being corrupt, tho' it be sent into the liver, it cannot be turned into nutriment; for the second concoction can't correct that which the first hath corrupted; and therefore the liver sends it to the womb, which can neither digest it nor repel it, and so it is voided out, still keeping the colour which it had in the ventricle. The cause also may be in the reins, being over heated, whereby the spermatical matter, by reason of its tenuity flows forth. The external cause may be the moistness of the air, eating corrupt meats, anger, grief, slothfulness, immoderate sleeping, and costiveness.

The signs are extenuation of body, shortness and stinking breath; loathing of meat, pain in the head, swelling of the eyes, melancholy, humidity, flows from the womb, of divers colours, as reddish, black, green, yellow, white: it is known from the flowing and overflowing of the courses; in that it keeps no certain periods, and is of so many colours; all which do generate from blood.

For

For the cure of this, it must be by methods adopted to the case; and as the causes are various, so must be the cure.

If it be caused by the distillation from the brain, take syrup of bettony, stachus and marjoram, purge with pillococh, make napalia, of the juice of sage, hyssop, bettony, negella, with one drop of oil of cloves, and a little silk cotton. Take elect. dianth. aromat. rosar. diamosci dulcis, of each 1 drachm; nutmeg half a drachm; with sugar and bettony water make lozenges to be taken morning and evening. Also take auria Alexandria, half a drachm, at night going to bed.

If the matter flowing forth be reddish, open a vein in the arm; if not, apply ligatures to the arms and shoulders; some have cured this distemper by rubbing the upper parts with crude honey; and so, Galen says he cured the wife of Botius.

If it proceed from crudities in the stomach, or from a cold distempered liver, take every morning of the decoction of lignam sanctum; purge with pill. de agarico, de hermodact. de hiera diacolocynthid, Foedita, agragrativ. Take of elect. aromat. ros. 2 drachms, citron-peels dried, nutmeg, long pepper, of each one scrup. diagalinga, one drachm; santali alba, ligni aloes, of each half a scrup. sugar 6 ounces; with mint-water, make lozenges of it, and then take it after meals. If with frigidity of the liver, be joined a repression of the stomach, purging by vomiting is commendable; for which take 4 drachms of the electuary os diarum. Some physicians also allow of the diurical means, as of opum, trofolinum, &c.

If the matter of the syrup be melancholious, prepare with syrup of maiden hair, epithimum polipody, burrage, bugloss, fumetary, hart's tongue and
syrups

syrups bysantinum, which must be made without vinegar, otherwise it will rather animate the disease than strengthen nature; for melancholy by the use of vinegar is increased, and by *Hippocrates*, *Sylvius*, and *Aventinus*, it is disallowed of, as an enemy to the womb, and therefore not to be used inwardly in uterine diseases, purges of melancholy are, pilulæ indæ, pilulæ, de lap. lazuli, diosena, and confectio hameigh. Take stampt prunes, 2 ounces, senna 1 drachm, epithimum, polipody, runitary, of each a drachm and a half; 4 dates, 1 ounce, with endive water make a decoction, take of it 4 ounces; add unto it confectionis hamech, 3 drachms; manna 3 drachms. Or pil. indatum, phil. færidarum, agarici trochiscati, of each 1 scruple, lapidis lazuli, 3 grains; with syrup of erithimum make pills, and take them 1 every week.

If the matter of the flux be cholerick, prepare with syrup of endive, violets, succory, roses, and perge with mirabolans, manna, rhubarb, cassia; take of rhubarb, 2 drachms, anniseed, 1 drachm, cinnamon a scruple and a half: infuse them in 6 ounces of prune broth; add to the straining of manna 1 ounce, and take it according to art. Take spiciermum diatrionfontalon, diatragacant, frig. diarrhod, abbatidis diaconit; of each 1 drachm, sugar 4 ounces, with plantain water make lozenges.

Lastly, let the womb be cleansed from the corrupt matter, and then corroborated: and for the cleansing thereof, make injections of the decoction of bettony, fetherfew, mugwort, spikenard, bistort, mercury, sage, adding thereto sugar, oil of sweet almonds, of each 2 ounces, then to corroborate the womb, prepare trochisks in this manner. Take of myrrh, fetherfew, mugwort, nutmegs, mace, amber, ligini aloës, storax, red roses of each 1 oz. with

With mucilage of tragacanth made trochisks; cast them on the coals, and smother the womb therewith; fomentations may be also made for the womb, of red wine, in which hath been decocted mastich, fine bole, balustia, red roses. And drying diet is best, because this distemper usually abounds with phlegmatic and crude humours. Immoderate sleep is hurtful, but moderate exercise will do well.

Thus have I gone thro' the principal effects peculiar to the female sex; and prescribed for each of them such remedies, as with the divine blessing, will cure their distempers, confirm their health and remove all those obstructions which might otherwise prevent their bearing children: and I have brought it into so narrow a compass, that it might be of the more general use; being willing to put it into every one's power, that has occasion for it, to purchase this rich treasure at an easy rate.

C O N T E N T S

Of the several Chapters and Sections contained in
this Book.

THE introduction page 1

C H A P. I.

An anatomical description of the instruments of generation both in man and woman 2

§ 1 Of the parts of generation in man ibid

§ 2 Describing the parts of generation in women 9

§ 3 Of the difference between the ancient and modern physicians, touching the woman's contributing seed to the formation of the child 22

C H A P. II.

Of conception, what it is, the signs thereof, whether conceived of a male or female, and how women are to order themselves after conception 25

§ 1 What conception is, and the qualifications requisite thereto ibid

§ 2 The signs of conception 27

§ 3 Whether conception be of a male or female 29

§ 4 How a woman ought to order herself after conception 30

Rules for the first two months 33

Rules for the third month 34

Rules for the fourth month 35

Rules for the 5th, 6th, and 7th months ibid.

Rules for the 8th and 9th 58

C H A P. III.

Of the parts proper to a child in the womb; how it is formed there, and the manner of its situation therein 40

§ 1 Of the parts proper to a child in the womb 41

Of the umbelicals, or navel-vessels ibid.

Of the secundine, or after-birth 43

§ 2 Of the formation of the child in the womb 44

§ 3 Of the manner of the child's lying in the womb 48

C H A P. IV.

A guide for women in travail, shewing what is to be done when they fall in labour, in order to their delivery 51

§ 1 The signs of the true time of a woman's labour 52

§ 2 How a woman ought to be ordered, when the true time of her labour is come 55

CHAP.

C O N T E N T S.

C H A P. V.

Of natural labour, what it is, and what the midwife is to do in such a labour 62

- § 1 What natural labour is *ibid.*
- § 2 Of the cutting of the child's navel-string 66
- § 3 How to bring away the after-burthen 70
- § 4 Of laborious and difficult labours, and how the midwife is to proceed therein 72
- § 5 Of a woman labouring with a dead child 77

C H A P. VI.

Of unnatural labour, and what to be done therein 81

- § 1 How to deliver a woman of a dead child, by manual operation 82
- § 2 How a woman must be delivered when the child's feet come first 85
- § 3 How to bring away the head of the child, when separated from the body and left behind in the womb 88
- § 4 How to deliver a woman when the side of the child's head is presented to the birth 90
- § 5 How to deliver a woman when the child presents one or both hands, together with the head 91
- § 6 How a woman is to be delivered when the hands and feet of the infant come together *ibid.*
- § 7 How a woman shall be delivered that hath twins which present themselves in different postures 93

C H A P. VII.

Directions for child-bearing women in lying-in 96

- § 1 Shewing how a woman newly delivered ought to be ordered *ibid.*
- § 2 How to remedy those accidents to which a lying-in woman is subjected 98

C H A P. VIII.

Directions for nurses, in ordering new-born children 103

- § 1 What is to be done to the new-born infant after cutting the navel-string 104

C H A P. IX.

Of the indisposition of new-born infants, with suitable remedies for each 107

- § 1 Of gripes and pains in the belly in young children *ib.*
- § 2 Of weakness in new-born infants 109
- § 3 Of the fundament being closed up in a new-born infant 111
- § 4 Of the thrush or ulcers in the mouth of an infant 112

Sect 2

C O N T E N T S.

§ 5	Of pains in the ears, inflammation, moistures	113
§ 6	Of redness and inflammation of the buttocks groins, and thighs of a young child	114
§ 7	Of vomiting in young children	115
§ 8	Of breeding teeth in young children	116
§ 9	Of the flux of the belly or looseness in infants	118
§ 10	Of the epilepsy and convulsions in children	120
§ 11	Of the worms in young children	121

P A R T II.

Containing proper and safe remedies for the curing of all those Distempers that are peculiar to the Female Sex; and especially those that are any Obstructions to their bearing of Children.

C H A P. I.

Of barrenness, its several kinds, with proper remedies against and the signs of insufficiency both in men and women

§ 1	Of barrenness in general	ibid.
§ 2	Signs and causes of insufficiency in men	129
§ 3	Signs and causes of insufficiency and barrenness in women	131

Some excellent remedies against barrenness, and to cause fruitfulness

C H A P. II.

Of the diseases of the womb

§ 1	Of the hot distemper of the womb	ibid.
§ 2	Of the cold distemper of the womb	143
§ 3	Of the inflation of the womb	144
§ 4	Of a dropsy in the womb	146
§ 5	Of the inflammation of the womb	148
§ 6	Of the schirrotity and hardness of the womb	150
§ 7	Of the straitness of the womb, and its vessels	153
§ 8	Of the falling of the womb	153

C H A P. III.

Of diseases relating to women's monthly courses

§ 1	Of women's monthly courses in general	ibid.
§ 2	Of the suppression of the monthly courses	158
§ 3	Of the overflowing of the monthly courses	162
§ 4	Of the terms coming out of order either before or after their usual time	166
§ 5	Of the false courses	167

